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ABSTRACT

This curriculum guide offers instructional materials to integrate the study of ancient Egyptian art across the curriculum. It is designed to be used in coordination with a student field trip to a related exhibit at the San Diego (California) Museum of Man. Materials can be adapted for use independent of the exhibition. Designed for students and teachers, some materials are in English and Spanish. Lessons follow curriculum area disciplines: history-social science, English-language arts, mathematics, science and health, technology, visual arts, and assessment. Games, activities, datasheets, and worksheets along with teacher answer sheets are provided. Lessons explore topics such as, Egyptian art and artifacts, hieroglyphs, number systems, and mummies. Background information provides illustrations and information about the pre-Dynastic era, the middle kingdom, the new kingdom, royalty, private people, funerary practices in ancient Egypt, and Graeco-Roman concerns. The guide concludes with a glossary and an index. Contains 33 references. (MM)

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LIFE AND DEATH ON THE NILE: SUN GODS AND MUMMIES IN ANCIENT EGYPT

EGYPTIAN ART

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An Integrated Curriculum Guide for the Intermediate and Middle School Student

Co-sponsored by The San Diego Museum of Man and The San Diego County Office of Education

Front Cover

Private Stela with Yaya and Menna
Late Amarna Period
SDM #14881
Limestone (7 3/4" long, 6 3/4" wide)
Tel el Amarna

This relief was excavated in 1924 by the Egypt Exploration Society, outside of the walls of House R. 44.2, in the area of the Great Temple. This house belonged to Panehsy, Chief Servitor of the Aten at Tel el Amarna. The relief owes its excellent preservation to the fact that when it was discovered it was buried, carefully wrapped in a linen cloth. It is one of the few private stela found at Tel el Amarna. It may even be identified as belonging to folk art.[1]

There are four figures in this secular relief. The two figures seated, Yaya and Menna, are being served by the two standing figures, Shety and Mery. The latter wear ointment cones on their black wigs tied back with delicate brown bows.

Note the position of the right hand of the far left figure nearest the viewer. He holds a wine bowl to his mouth. The girl opposite him holds a jar to refill it. The second seated figure reaches out with right hand to cradle a shallow dish.

Activity: Ask students to compare the imagery and use of hieroglyphs on this stela with the British Museum stela on page 208 of the sixth grade Houghton Mifflin Social Studies text.[2]

Students might write or talk about the number of people, the type of furniture, the kind of offerings, the shape of the stela, and even the placement of the hieroglyphs on the two reliefs.

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[1] Aldred,Cyril. *Akhenaten and Nefertiti*. New York: Viking Press, 1973, p. 205.
[2] Armento, Beverly J., and et. al., *A Message of Ancient Days*. Boston: Houghton Mifflin Co., 1991, p.208.

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EGYPTIAN ART

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Co-sponsored by

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The San Diego County Office of Education

The Egyptian Art Curriculum Guide was developed through the cooperative efforts of the San Diego County Office of Education and the San Diego Museum of Man. Vista Unified School District is gratefully acknowledged for the Spanish translations it provided.

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A Message from...

San Diego Museum of Man Director

On June 28, 1992, the Museum of Man opened the exhibition, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt." This was a significant milestone since the exhibit is the most comprehensive one of its kind on the west coast.

In the 1920's and 1930's, the museum acquired its first Egyptian holdings. Donated by Ellen Browning Scripps, the collection was later displayed during the 1950's and 1960's in a very popular exhibit, "The Egyptian Tomb." In January of this year, another outstanding Egyptian collection was received, this one from Dr. and Mrs. Geoffrey A. Smith. Now, with a total of more than 1,000 items from ancient Egypt, we have a valuable resource for all interested in learning about this fascinating culture.

Collaboration with the County Office of Education is an important move towards disseminating the knowledge gained from many years of research by Egyptologists. Educators and students will have access to information gained from excavations at Tel el Amarna early in this century as well as from recent CT-scans of a Ptolemaic mummy.

School curricula focusing on Egyptology will be further reinforced by visits to the museum where students can view actual items corresponding to new units in their social studies textbooks. Photographs, slides, and lectures will also help to enliven the study of ancient Egypt.

This collaborative venture demonstrates how course content can be enhanced by pooling the expertise of educators and the resources of a public service organization. I congratulate everyone involved in putting together this first-rate teacher's guide, and all the dedicated teachers who will use it as a window on the past, helping build a better future.

Douglas Sharon
Director
San Diego Museum of Man

County Superintendent of Schools

Studying the Egyptian collection at the San Diego Museum of Man illuminates many of civilization's greatest and most enduring accomplishments. Art, spirituality, creativity, and the search for order and meaning – they are all contained in this collection. It's a profound and enriching experience.

The Egyptian Art Curriculum Guide provides the tools and resources to bring this experience into the classroom. The guide provides an effective means of integrating history, science, math, and literature with the visual arts. The California Department of Education's *Visual and Performing Arts Framework* and the new frameworks in science, math, and history-social science served as cornerstones for this curriculum guide.

Furthermore, because California's schools are given the charge to find ways to deliver an enriched curriculum to the large and growing population of Limited-English-Proficient (LEP) students, this guide, with student worksheets and information in Spanish, offers important resources to the LEP teacher, too.

I am delighted that students have access to a permanent Egyptian exhibit at the San Diego Museum of Man, and the opportunity to study illustrated materials in English and Spanish developed for museum visits.

Using these materials, educators will be able to introduce Egypt's profound and enduring vision to the next generation of San Diego County students.

Harry C. Weinberg
County Superintendent of Schools

Foreword

The Museum of Man obtained its first ancient Egyptian artifacts through an exchange with the Royal Ontario Museum in 1918. The following year, San Diego's great benefactress, Ellen Browning Scripps, began to provide funding for excavations conducted by the Egypt Exploration Society. She designated the Museum of Man to receive a portion of the objects recovered from these excavations. For more than fifteen years, the Museum received regular shipments of antiquities because of the generosity of Miss Scripps. The majority of these artifacts came from Tel el Amarna, the city built by Akhenaten and Nefertiti in the late 18th dynasty. In 1991-92, another significant collection of Egyptian antiquities was presented to the Museum by Dr. Geoffrey A. Smith in honor of his father Dr. Gerald A. Smith. The Museum's holdings now total over 1,000 pieces and cover the Paleolithic through the Graeco-Roman periods, making it one of the most important resources for the study of ancient Egyptian cultural material in the western states.

In selecting objects for any exhibition, several factors come into play. A theme must be developed that is feasible given the available resources. Once the theme has been established, sub-themes are identified that can be interpreted in the individual exhibit cases. The Scripps collection contained a good cross section of artifacts from everyday life. These were complemented by objects from the Smith collection which are primarily funerary in nature. Combined, these two collections, along with objects from other donors, provided enough material to give an overview of the art, life, and death of Egyptians thousands of years ago. Because fewer than 150 objects could be placed in the present exhibition, selections were made on the basis of condition, artistic merit, visual appeal, variety, and appropriateness to the theme.

Egyptian culture was largely based on the concept of "Maet," a word that has no exact parallel in English. The goddess Maet is usually represented as the goddess of truth, but for Egyptians the word had a much deeper meaning. Maet signified rightness and stability, the *status quo* as a positive force. To "live in truth" *(Ankh em Maet)* was the aspiration of every Egyptian. The life-giving powers of the sun, the annual innundation of the Nile, the pharaoh as living god and protector, these were things the Egyptians depended on as constants in their lives. These constants allowed the Egyptians to develop their highly distinctive culture which lasted for some 3,000 years.

Viewing objects from a civilization that flourished in the far distant past, we are given a rare opportunity to step back in time and imagine what it would have been like to have lived then. Some of the objects seem familiar, and provide a sense of continuity. Others are strange, and demonstrate that significant changes have taken place in the religious beliefs and burial customs of humans over the centuries. What will future generations think of the artifacts that we leave behind and what conclusions will these objects suggest about our lives today? How will future generations regard our deeply held beliefs? By examining the lives of past peoples we can gain a greater awareness of our own true place in the sequence of history. When confronted with the timeless treasures of ancient Egypt, this can be a humbling experience.

Bruce Kamerling
Guest Curator
San Diego Museum of Man

Figure 1: *Private Stela with Yaya and Menna* (detail)

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Preparing for a Visit to the Museum of Man

To make the most out of a visit to the exhibit, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," be prepared in advance. The first thing on a list of preparations should be the development of an objective for the trip. You might have one or several in mind already or often, the purpose only becomes truly apparent after your pre-visit. Make contact with the Education Department and ask for information on educational programs, loan library materials, and booking a visit. Besides your normal field trip arrangements, the museum asks for reservations six weeks in advance of your visit. The phone number is (619) 239-2001.

Travel to the Museum of Man by yourself as many weeks in advance as possible. Plan to bring with you all the materials in this guide that you will later give to students when they visit. Bring photocopied activity sheets to use as your answer sheets, your catalog of items discussed in this guide, and plenty of note cards to jot down information about the items that interest you which are not included in this guide.

The title or label in the exhibit or the background information in this guide is your first clue to a story or an important feature. When examining the artifacts, study the tools and materials used to develop or create objects such as the ushabtis. This will help you gain an appreciation for the problems that were solved in completing the items on display. You might have selected several items in the same style or several using the same materials or concept. You might use this as a comparison study for your class and have them examine the possibility of this being the best example.

If you are interested in doing additional research, take the opportunity to use the museum library. The Museum of Man has a non-circulating library open to the public by reservation. Many of the books included in the references are in their stacks. You may find resources that will not only describe the item, but give you interesting information about the item's development or location where found. Many of the Amarna pieces in this exhibit are illustrated in books in the museum library.

When you have finished your preparations and research, relate to your students what you have learned and do the suggested "before museum visit activities." Show them the slides or illustrations and make them as familiar as possible with the items by sharing your knowledge. Inform them of the purpose of the museum trip. Give the students a feeling of excitement and anticipation. They will have the opportunity to see the real items which is quite a different experience than two-dimensional reproductions.

Plan small group discussions, perhaps using a "jigsaw" approach. Divide the class into several groups. Give each group something different to read about the exhibit. Each group will receive the same questions as everyone else to discuss about its reading. Next, the members disperse into small groups again. The new

group is made up of members who have each read different selections. Then, each in turn share the findings of the first groups with the new group.

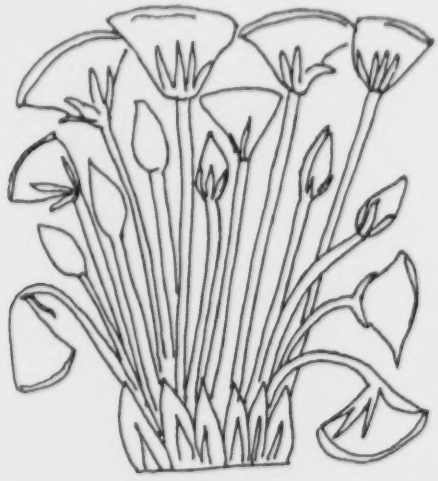
Prepare a budget for your trip which includes time and money. Be economical in terms of the amount of time from the school day that will be used by the trip, and try to make the best use of space on your bus. You might decide to divide your group in half and request a docent, a volunteer tour guide, to show one half of your class the Egyptian exhibit while the other half goes with another docent to see other exhibits which tie into the curriculum (e.g., "Life Cycles and Ceremonies" complements Health Education and Social Concern, and "Ancestors" complements studies on human evolution).

There is a nominal registration fee for each tour and for groups to enter the museum. This information is included in the museum's brochure for educational programs. Plan ahead with the museum for the storage of student lunches. While there is no place to eat in the museum, there are many beautiful areas to eat in Balboa Park. On rainy days, make a contingency plan. Locate the restrooms and try to avoid carrying coats, sweaters, or umbrellas.

In this guide you will find many instructional materials suitable for "scavenger hunts" in the exhibit. Be sure to prepare these materials in advance for students to work on during their visit or after the docent tour.

Also, include in your planning, opportunities for students to communicate, upon their return, their interpretations and findings to others. One goal might be that students see relationships between what they experienced previously and now understand and what they will be exposed to in a new lesson.

Sharing the treasures of your community with students as a result of your careful preparation can be very rewarding for all involved.[3]



[3]Ann Heidt, "Going to a Museum: What To Do Before and After You're There," *Arts and Activities Yearbook*, 1977, n.p.

Using This Curriculum Guide

There are many more instructional materials included in this packet than you could possibly use. Select the ones that best fit your objectives and the needs of your students. Some of the materials have been translated into Spanish. These are marked by an asterisk in the Table of Contents. If the translations are not exact, it is due to editing of the English just prior to publication. Many activities may serve multiple disciplines.

There are a variety of ways to spell and pronounce Egyptian names, places, and terms. The Egyptians did not leave a guide for pronouncing their language. The Egyptian language was only preserved in the old Coptic language in rituals in the Coptic Church, Christian descendants of the ancient Egyptians. Here, there was a limited usage of Egyptian words. Until recently, vowels were not written. Therefore, once included, some spelled words like Nefertiti were also spelled Nofertiti. In some texts, the Egyptian names are spelled the way they were in Greek and Roman writings. For example, Amenhotep is Amenophis. It is fairly common when looking through texts to see many spellings for Egyptian words.

There is no "right" or "wrong" way to pronounce Egyptian words.
Try to pronounce the words as best as you are able.

There are no exact dates known for the Egyptian chronology. Discrepancies might be noted when you do your own research using many texts.

Figure 2: *Mummy Mask* (detail)

Ancient Egyptian Art Time Line

One of the earliest and most significant achievements of the human race is the art of ancient Egypt.

Ancient Egyptian art may be divided roughly into three phases of cultural and artistic development:

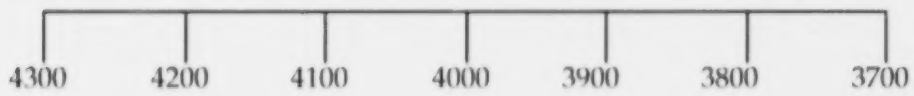
1. Prehistoric and Predynastic
2. Pharaonic
3. Graeco-Roman

These three phases may be divided into periods associated with political, cultural, and religious history. This time line looks at art in these periods.

For this assignment you need:

- Pictures of objects from ancient Egypt
- Time period labels
- A list of Egyptian art statements
- Scissors, tape/glue, construction paper

1. Cut out a construction paper strip and mark off the years by 100's. Remember, B.C. time goes backwards! Example:



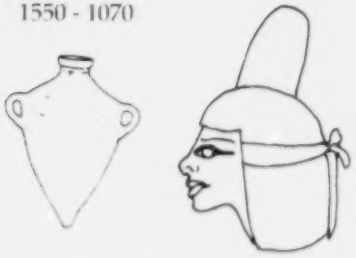
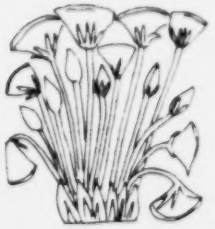
2. Label each time period in bold letters along with the title of the time span covering the period.
3. Cut out the artistic statements and glue them down in the appropriate places on the time line.
4. Draw or select at least one art object to go with each given time period.

Instructional materials prepared by the San Diego County Office of Education and the San Diego Museum of Man in conjunction with the exhibit, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," which opened June, 1992.

TIME LINE

Dynasties	Time Periods	Art Objects from the San Diego Museum of Man	Art History
	Predynastic 4300 - 3200 B.C.		• incised figures and relief carvings on objects of wood, bone, and ivory • technique of stone vase manufacturing perfected
	Badarian 4300 - 4000	Jars and Dishes	• most attractive pottery made • coarse and fine pottery • grave goods of black-topped red wares
	Gerzean 3600 - 3100	Pottery Jar w/waved panels, 4000 Prophyry Jar, 3500 - 3100 Pottery Jar w/spirals, 3500 - 3100	• red on buff ware
1 2	2920 - 2770[1] 2770 - 2649		• advanced technique and more materials in sculpture (wood, stone, and faience) • large ceremonial palettes and mace-heads
	Old Kingdom		• pyramids made of gigantic stones
3	2649 - 2575		• painted sculpture
4	2575 - 2465		• the great sphinx was carved (2613 2494)
5	2465 - 2323		• fully developed technique of low-relief sculpture
6	2323 - 2150		• painting begins to supersede relief in tomb decoration
7 - 10	First Intermediate Period 2150 - 2040		
	Middle Kingdom 2040 - 1640	Funerary Stela of Mentuhotpe Funerary Statuette, 1800	• pyramids made of brick • fine low relief sculpture continues • sunken relief was widely used because it is more desirable on exposed surfaces and easier to see in a strong light
11	2040 - 1991		• outstanding murals appear in tombs • grid system was used to bring greater "truth" to details in relief

[1]Chronological table information from Wilkinson, Richard. *Reading Egyptian Art*. London: Thames and Hudson, 1992, p.13.

12 13	1991 - 1783 1783 - 1640		• characters delineated for the first time in some royal sculpture • statues were mass produced • block statues introduced • the most beautiful jewelry was made
14 - 17	Second Intermediate Period 1640 - 1550		
18	New Kingdom 1550 - 1070  	Stela Dedicated to My Ptah Kneeling Figure Stela Fragment with Worshipping Figure Royal Figure Worshipping Manger Relief Fresco Malkata Vase Clay Jar	• papyri illumination • reliefs with soft pastel colors and subtle variations among the figures • tomb painting flourished • glass is made on a regular basis • mortuary temple of Queen Hatshepsut built in Deir el Bahri • the compact and simplified sculptured form of a kneeling figure is introduced • statues in harder rocks such as basalt, diorite, granite, quartzite, and schist (graywacke) were left uncolored • sculptures with smooth and highly polished surfaces had contrasting decorative patterning and detail • a style called Amarna was developed • painted decoration might be continuous over more than one wall • king and royal family prominently represented • subjects from nature depicted with liveliness • the use of curves and sloping lines gracefully exploited • fondness for streamers and garlands (a feminine allure)

Instructional material prepared by the San Diego County Office of Education and the San Diego Museum of Man in conjunction with the exhibit, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," which opened June, 1992.

		Blue Kepresh Crown Fragment Relief with Fan Bearers in Procession Relief with Fan Bearers Overlapping	• polychromy appeared in sculptures by piecing together composite statues from separate elements • artists could use realism based on visual perception (compare with Minoan art) • sculptor Bak worked in the Amarna style • sunken relief is more popular • "cavalier" perspective (ground no longer divided into registers, but mounted to a high horizon as if the artist/viewer were on horseback)
19 20	1307 - 1196 1200 - 1085		• end of 19th dynasty - quality of Egyptian painting declines
 21 22 23 24 25	Third Intermediate Period 1070 - 945 945 - 712 828 - 712 724 - 712 712 - 657		• no appreciable architectural activity • bronze sculpture appeared in quantity (domascene technique) • traditional themes persisted • royal sculpture in the round at a minimum
26	644 - 525	Ushabti	• small sculpture mass produced
27 28 29 30 31	525 - 404 404 - 399 399 - 380 380 - 343 343 - 332	Ushabti	• multi-colored hieroglyphs • figure inlays in millefiori glass were developed
  Ptolemaic	Graeco-Roman Period 332 - AD 395 304 - AD 30 	Mummy Naos Shrine with Re Falcon Mask of a Bearded Young Man	• cultural center of Egypt moves to Alexandria • Ptolemies appeared in reliefs and statues as the legitimate successors of the Pharaohs • faces have expressions of extreme concentration

Instructional material prepared by the San Diego County Office of Education and the San Diego Museum of Man in conjunction with the exhibit, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," which opened June, 1992

Functions of Egyptian Art

Venn Diagram for History-Social Science

Note to teachers: This diagram can be used during the exhibit or after returning to school.

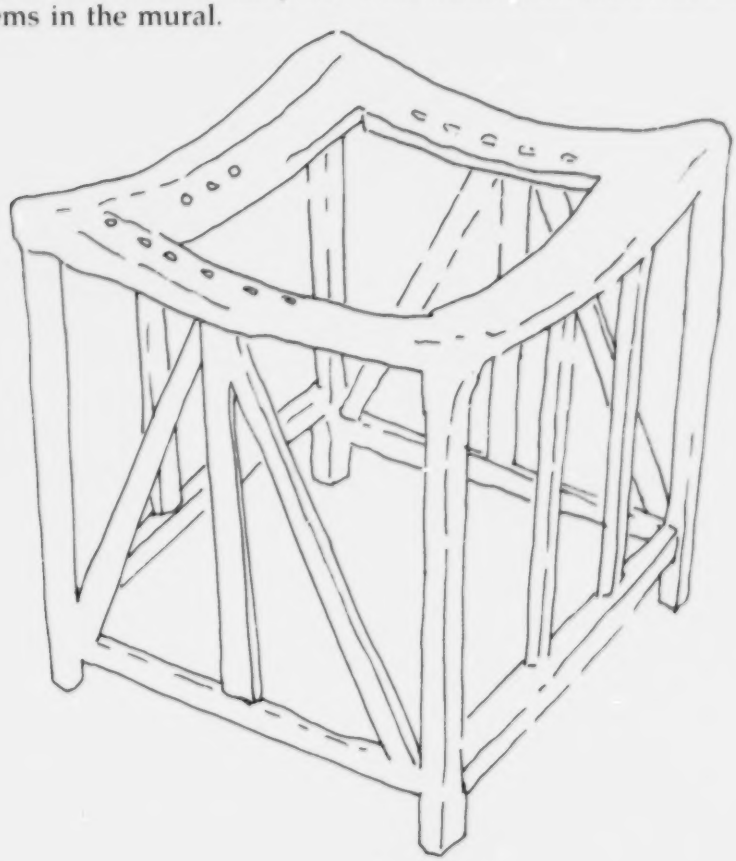
Before museum visit: Make sure students understand the type of items made for use in daily life as compared to items made specifically for burials.

At the museum: 1) Set rules for behavior in museum; 2) Divide students into groups of 2-4 students; 3) Set time limit for search; 4) Students search throughout the exhibit to fill in their Venn Diagrams by viewing the pieces and reading the information; 5) Students return to a predesignated area to share and discuss their findings.

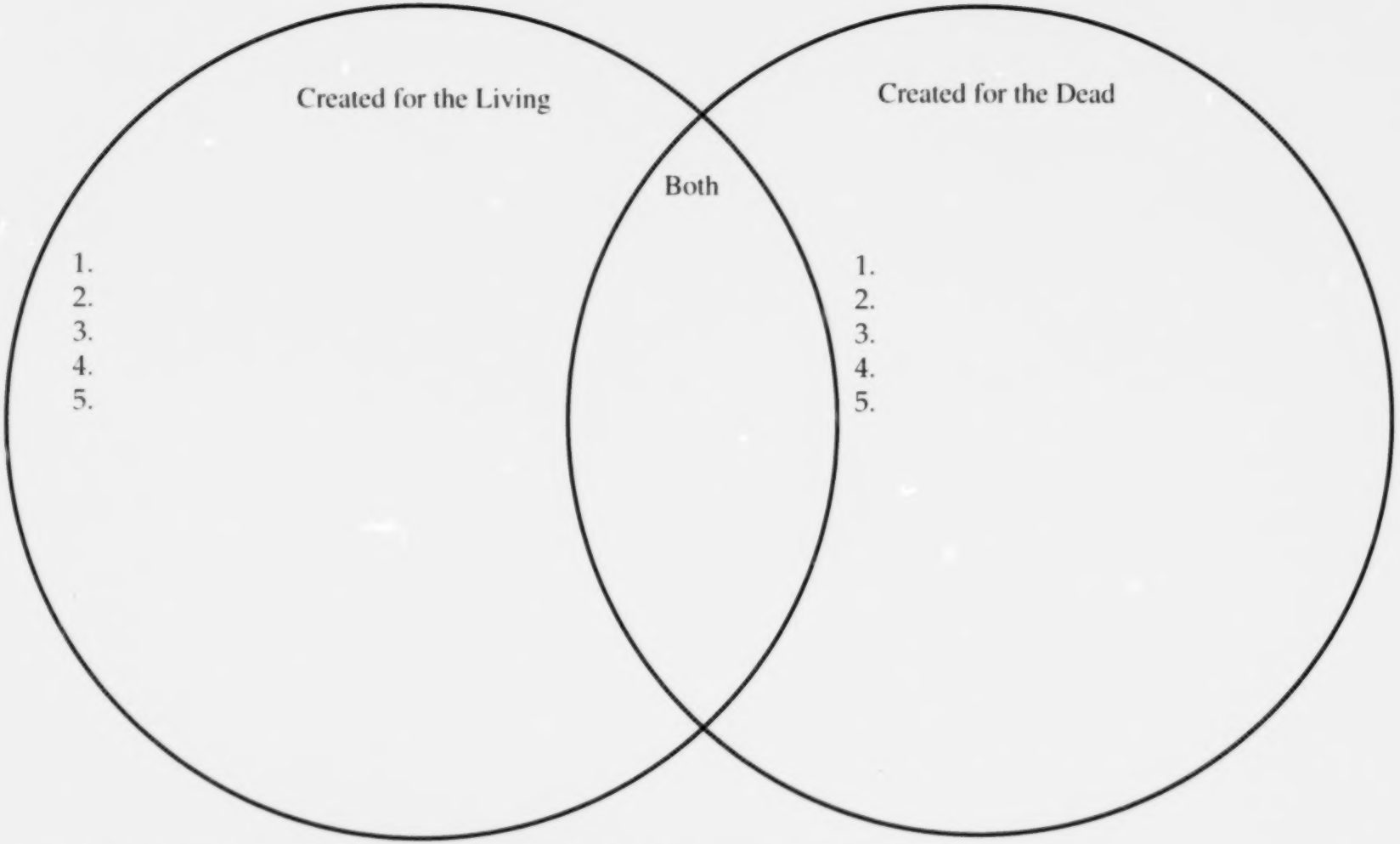
OR

After the visit: 1) Make a thermal overhead of the student page; 2) Using the printed catalogue or a slide show, have students fill in the Venn Diagram individually or as groups; 3) Discuss their findings by writing ideas on a thermal overhead.

Extension: Have groups do murals depicting a tomb with items in the museum for the dead, and a mural of daily life with items from the exhibit for the living. Label the items in the mural.



Functions of Egyptian Art



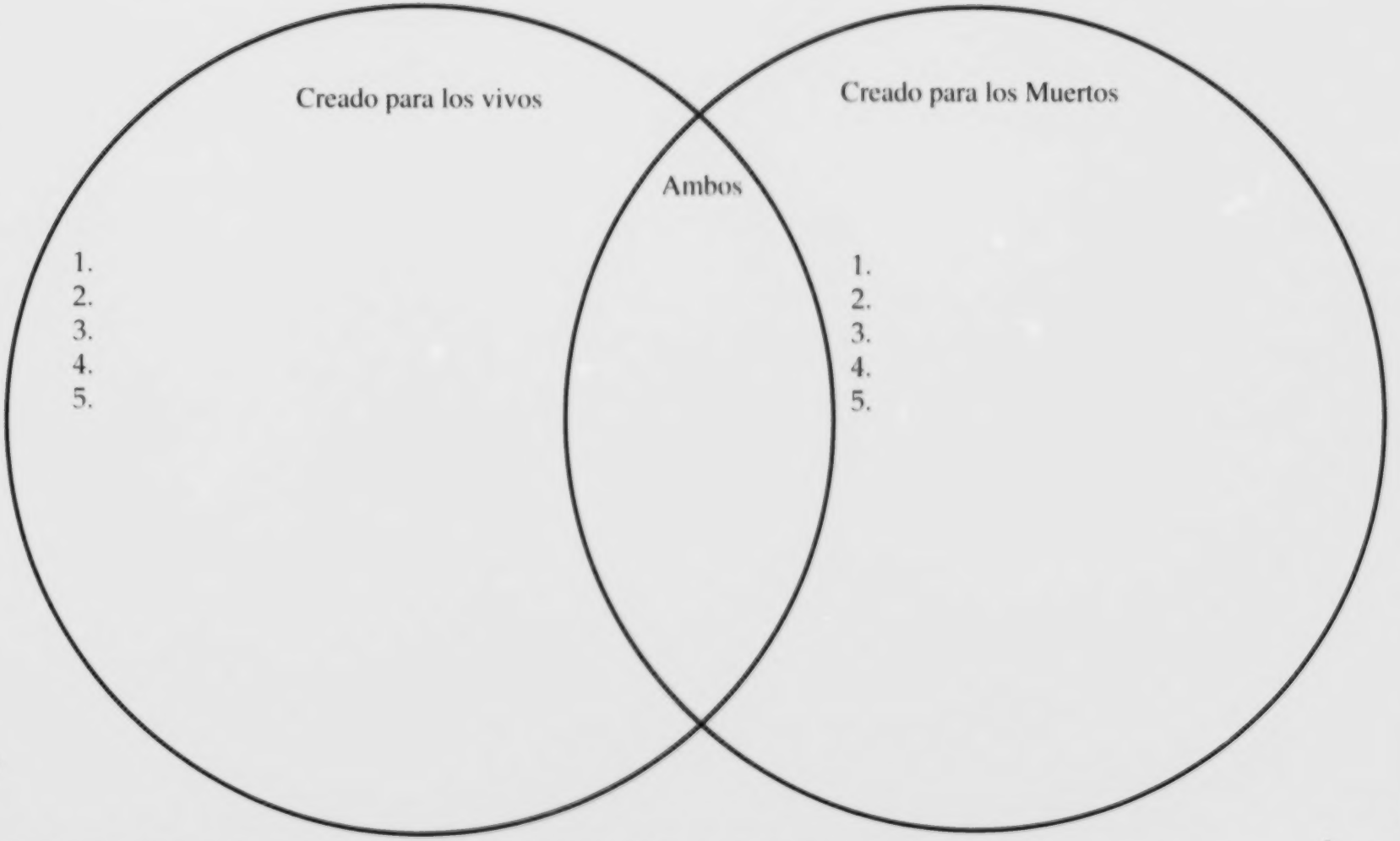
In the Venn Diagram above, list five objects in the San Diego Museum of Man which could have been made just for the living, just for the dead, or objects that could have been used for the living or dead and placed in a tomb.

Name _____

Date _____

Instructional material prepared by the San Diego County Office of Education and the San Diego Museum of Man in conjunction with the exhibit, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," which opened June, 1992.

Funciones Del Arte Egipcio



10

27

28

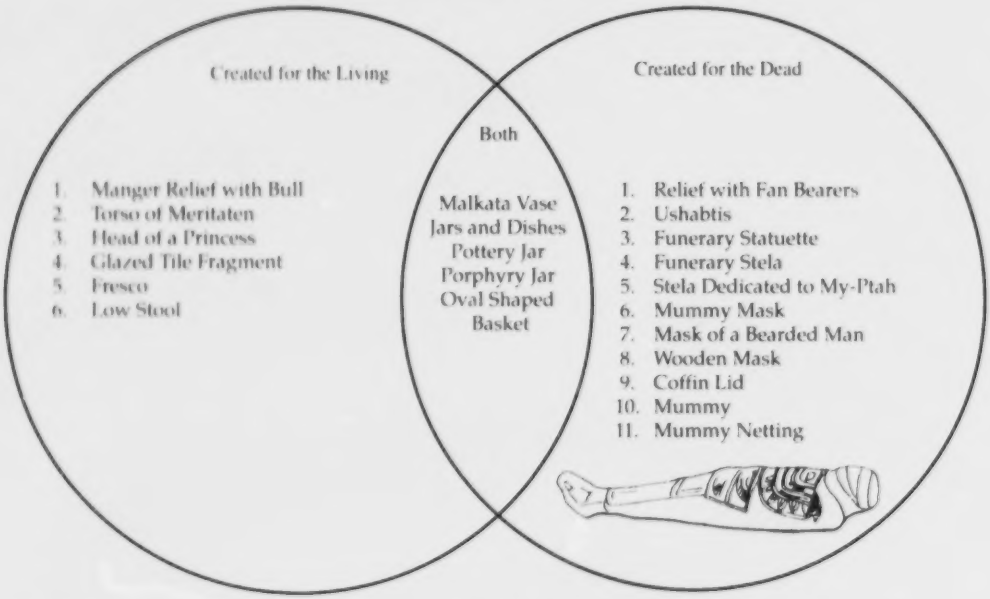
En el Diagrama Venn arriba expuesto, enumere 5 objetos del Museo del Hombre de San Diego que pudieron ser hechos sólo para los vivos, sólo para los muertos u objetos que fueron colocados en una tumba, pero que tanto los vivos como los muertos hubieran utilizado.

Nombre _____

Fecha _____

El material de instrucción fue preparado por la Oficina de Educación del Condado de San Diego y el Museo del Hombre de San Diego, conjuntamente con la exhibición "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," el cual abrió en junio de 1992.

Answer Sheet - Functions of Egyptian Art

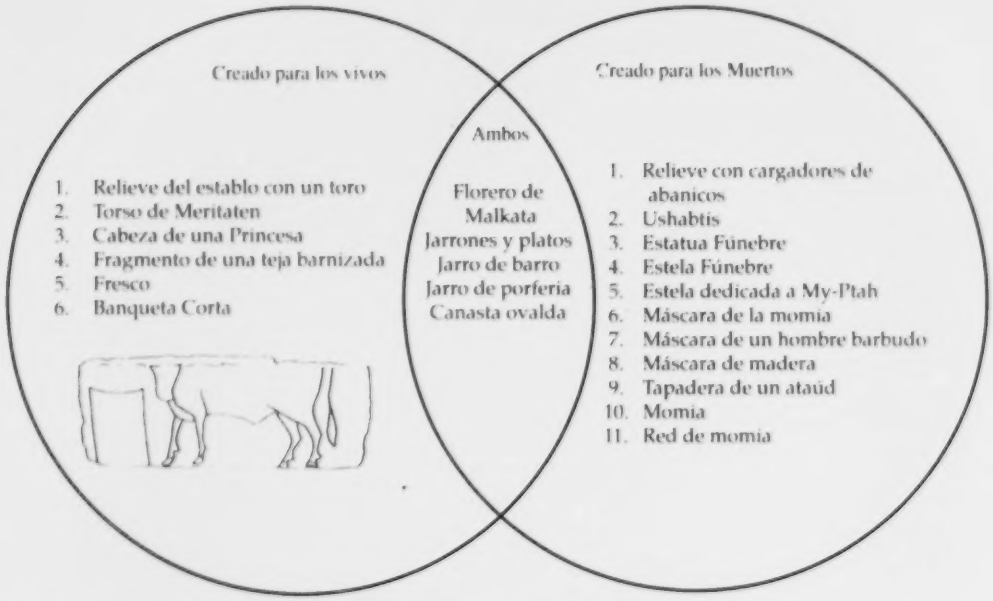


In the Venn Diagram above, list five objects in the San Diego Museum of Man which could have been made just for the living, just for the dead, or objects that could have been used for the living or dead and placed in a tomb.

Name _____

Date _____

Hoja de Respuestas - Funciones del Arte Egipcio



En el Diagrama Venn arriba expuesto, enumere 6 objetos del Museo del Hombre de San Diego que pudieron ser hechos solo para los vivos, sólo para los muertos u objetos que fueron colocados en una tumba, pero que tanto los vivos como los muertos hubieran utilizado.

Nombre _____

Fecha _____

Charting the Gods of Ancient Egypt

History-Social Science

Note to teachers: It is suggested that the first two sections of the chart be researched and filled in before going to the museum (gods' role and appearance). Students should also have a basic knowledge of Egyptian polytheism - or belief in many gods. The rest of the chart could be filled in during a visit to the exhibit or after returning to school.

At the museum: 1) Set museum behavior rules; 2) While walking through the exhibit, students should recognize the symbols for the four gods and record the museum piece(s) on their chart as well as other descriptions; 3) Share and discuss findings.

OR

After the museum visit: 1) Make thermal overhead of student chart; 2) Show slide show or have students use the printed catalog to fill in chart; 3) Discuss findings and fill in thermal overhead.

Extension: Have students create their own work of art centered around one of the Egyptian gods.

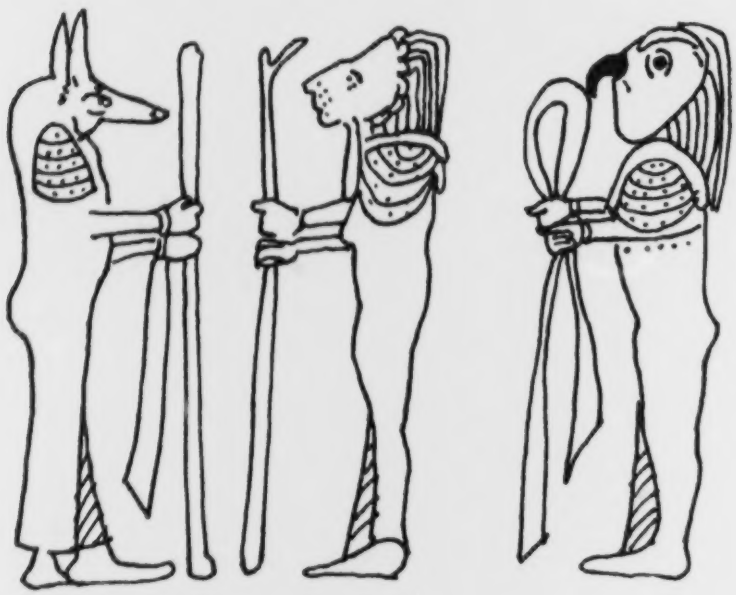
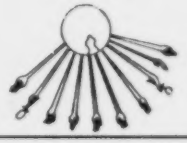
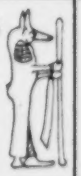


Figure 3: Drawings of gods on the Naos Shrine with Re Falcon (left to right: Anubis, Herakhty, and Horus). See figures 70 - 73.

Selected Gods of Ancient Egypt Information Retrieval Chart

GOD	The God's Role as a Divinity	The Appearance of the God	San Diego Museum of Man Art Work(s) in Which God Appears	Brief Description of the God in this Art Work	Other
MAET					
ATEN 					
ANUBIS 					
HORUS					

In describing the human characteristics of people who lived in ancient Egypt, it is important to describe their religious belifes. The ancient Egyptians had many gods. In the information retrieval chart above, list the art works identified with the Gods.

Name _____

Date _____

Instructional material prepared by the San Diego County Office of Education and the San Diego Museum of Man in conjunction with the exhibit, Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," which opened June, 1992.

Answer Sheet - Selected Gods of Ancient Egypt Information Retrieval Chart

GOD	The God's Role as a Divinity	The Appearance of the God	San Diego Museum of Man Work(s) in Which God Appears	Brief Description of the God in this Art Work	Other
MAET	Goddess of order, truth, and judgment	Seated female with ankh on knee and feather on head	Hieroglyphic inscription	Used as hieroglyph	
ATEN	Sun as giver of life - rays ending in hands holding ankhs	Disk of the sun with arms, hands, and ankh symbols	Stela fragment Head with ureaus	Receives offering of Akhenaten Rays and one hand visible	
ANUBIS	Leads the deceased to the afterlife judgment	Reclining jackal or human with jackal's head	Coffin lid Mummy My-Ptah stela	Reclines above inscription Prepares mummy Reclines at top of stela	
HORUS	Associated with the role of the king solar god	Hawk-headed man or hawk	Falcon shrine Clasps on broad collar of mummy	Sits atop shrine with sun disk and plumes on head Head in profile	

In describing the human characteristics of people who lived in ancient Egypt, it is important to describe their religious beliefs. The ancient Egyptians had many gods. In the information retrieval chart above, list the art works identified with the Gods.

Name _____

Date _____

Egyptian Art Clustering

Note to teachers: This clustering exercise is best used at the museum and again after returning to school.

Teacher preparation: Photocopy this information and write in titles and ID #'s for as many clusters as you want examined at the museum. This can be done in groups or individually depending on teacher preference.

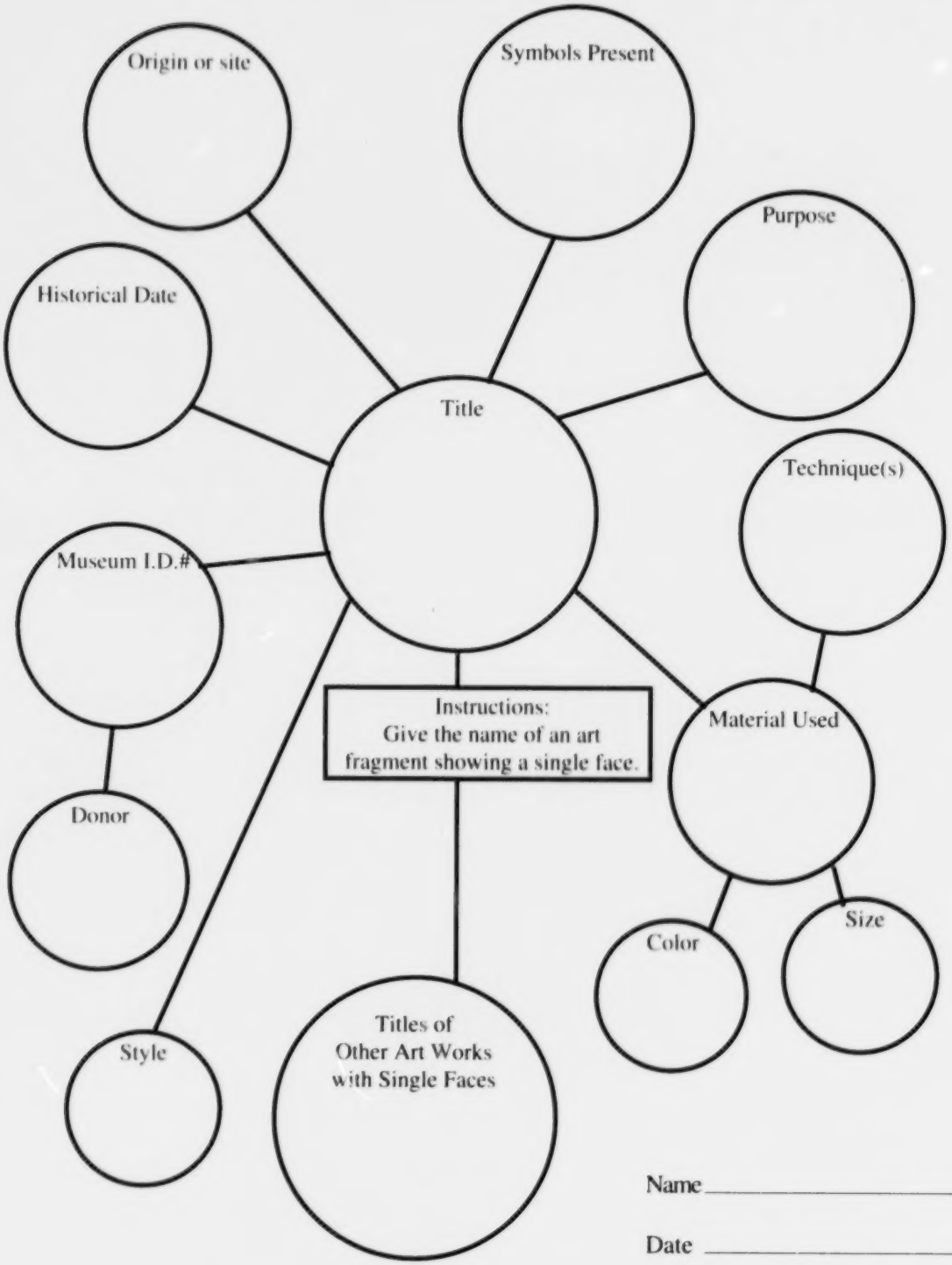
At the museum: 1) Set rules for museum behavior; 2) Students can record information "scavenger hunt" style, or fill in cluster as they come upon their piece on the tour.

After the visit: 1) Have student or group pair up with another student or group that observed and recorded a different art piece; 2) Have the pairs record on a separate sheet of paper the similarities and differences of their pieces; 3) Discuss and share similarities and differences with the entire class while the teacher records general similarities and differences on the board or overhead.

Extension: Have each student write a compare-or-contrast essay based on their two pieces of art. Illustrate the two pieces and display their writing and illustrations.

Figure 4: *Head of a Princess*

Egyptian Art Clustering

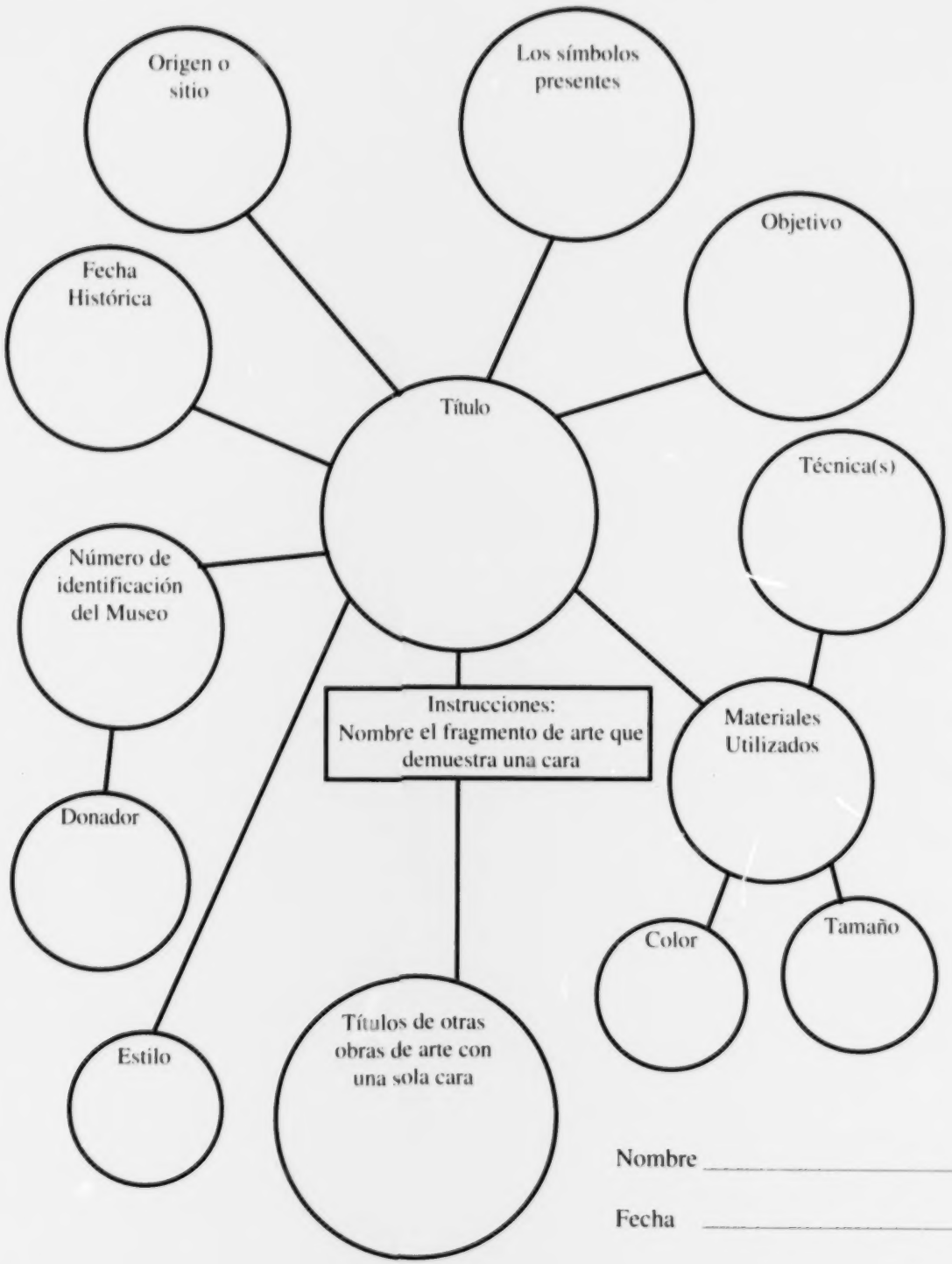


Name _____

Date _____

Instructional material prepared by the San Diego County Office of Education and the San Diego Museum of Man in conjunction with the exhibit, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," which opened June, 1992.

Agrupando el Arte Egipcio

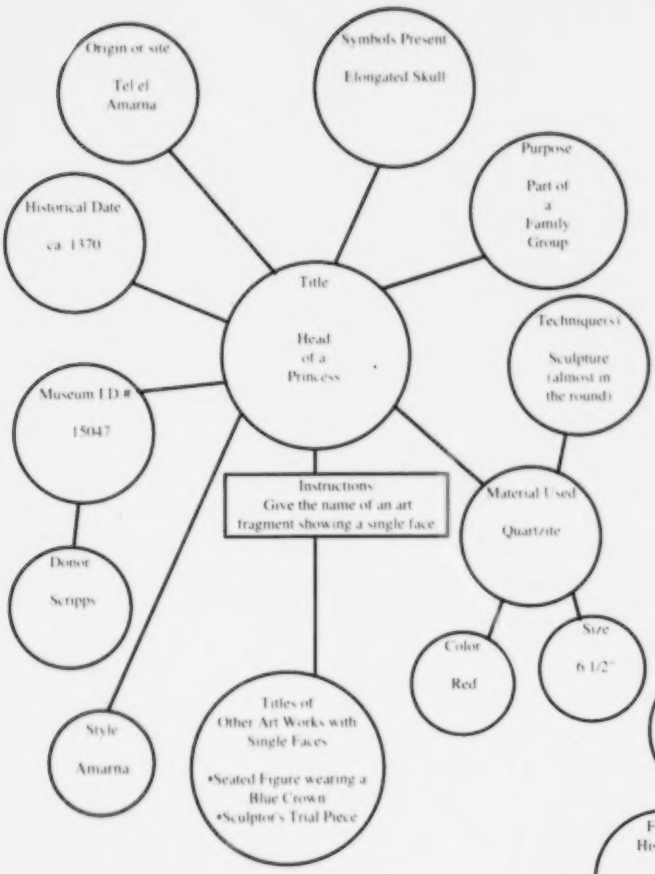


Nombre _____

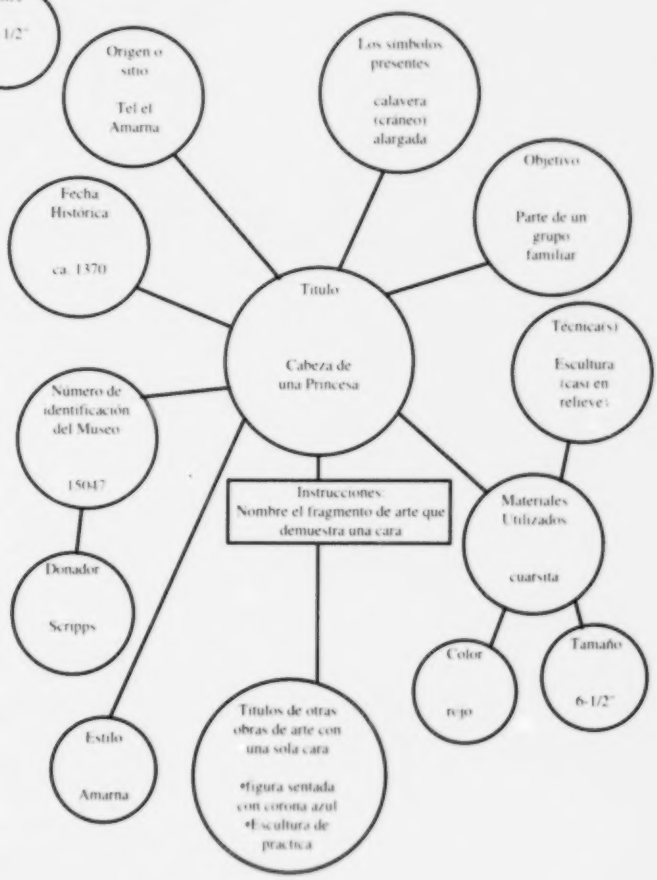
Fecha _____

El material de instrucción fue preparado por la Oficina de Educación del Condado de San Diego y el Museo del Hombre de San Diego conjuntamente con la exhibición, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," el cual abrió en junio de 1992.

Answer Sheet – Egyptian Art Clustering



Hoja de Respuestas - Agrupando el Arte Egipcio



Royal Egyptians as People in Art

History-Social Science

What visual images of the royal family at Tel el Amarna help best portray ideas of ancient Egyptians as a people?

Directions: Answer the question above by looking at the relief fragments and describing what you can learn by looking only at these images. Be sure to include the titles of the art works when you mention the family members.

	What You Learned	Art Fragment(s)
Family Members		Stela Dedicated to My-Ptah
Adult Male Role and Responsibilities		Stela Fragment with a Worshipping Figure and Libation
Adult Female Role and Responsibilities		Private Stela with Yaya and Menna
Children's Roles and Responsibilities		Stela Dedicated to My-Ptah
Clothing		Funerary Stela of Menthuhotpe, Kneeling Figure

Instructional material prepared by the San Diego County Office of Education and the San Diego Museum of Man in conjunction with the exhibit, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," which opened June, 1992.

El egipcio de la realeza como personaje del arte

¿Qué imágenes de la familia real en Tel el Amarna nos ayuda visualizar mejor a estos egipcios antiguos como personas?

Direcciones: Conteste la pregunta anterior mirando a los fragmentos en relieve y describiendo lo que usted puede aprender solamente mirando estos imágenes. Asegúrese incluir los títulos de las obras de arte cuando mencione los miembros de la familia.

	Que ha aprendido	Fragmentos de Arte
Miembros de la Familia		Estela My-Ptah
Papel de un Adulto Masculino y Responsabilidades		Estela untiozo con un figura adorando y libación
Papel de un Adulto Femenino y Responsabilidades		Estela de Yaya y Menna
Papel de los niños y Responsabilidades		Estela My-Ptah
Ropa		Estela de Menthuhotpe, figura arrodillanda

El material de instruccion fue preparado por la Oficina de Educacion del condado de San Diego y el Museo del Hombre de San Diego, conjuntamente con la exhibicion, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," el cual abrio en junio de 1992.

Artifact Sites

Note to teacher: It is suggested to do this activity before going to the museum, and then review during and after the exhibit since the students will get a better look at the objects at the museum.

Teacher preparation: Have a couple of students separate the printed catalog into two stacks based on site.

Before museum visit: 1) Divide class into two research groups; 2) Give each group a stack of printed museum pieces from one site; 3) Students examine their pieces and fill in their charts; 4) When complete, share and discuss information with class.

At the museum: 1) Have students look for their pieces and note features unseen in photocopied version; 2) Record new findings on charts.

After the visit: Site groups get back together to share new findings.

Extension: Have each site group draw a mural or picture of their site with its pieces. Include a description of the site using the information from their charts.

Figure 5: *Throne Room in The North Palace at Tel el Amarna, showing bases of columns and the dais on which the throne stood* (Photo taken in 1924-1925).

Selected Sites Where Egyptians Lived and Buried Their Dead

Information Retrieval Chart

Site	Where They Lived or Buried Their Dead	List Several Objects Found at this Site	Common Characteristics of These Objects	Other
Tel el Amarna				
Abydos				

Identify some of the sites where Egyptians lived and buried their dead by matching sites to art works in the San Diego Museum of Man.

Name_____

Date_____

Instructional material prepared by the San Diego County Office of Education and the San Diego Museum of Man in conjunction with the exhibit, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," which opened June, 1992.

Escogidos

Sitios Donde Vivieron Los Egipcios Y Donde Sepultaron Sus Muertos

Tabla de recuperación de información

Sitio	Donde Vivieron y sepultaron sus muertos	Enumere varios objetos encontrados en este sitio	Características Comunes de estos objetos	Otros
Tel el Amarna				
Abydos				

Identifique algunos de los sitios donde los egipcios vivieron y sepultaron a sus muertos, por medio de comparar los sitios con las obras de arte en el Museo del Hombre de San Diego.

Nombre _____

Fecha _____

El material de instrucción fue preparado por la Oficina de Educación del Condado de San Diego y el Museo del Hombre de San Diego conjuntamente con la exhibición, 'Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt,' el cual abrió en junio de 1992.

Answer Sheet - Selected Sites Where Egyptians Lived and Buried Their Dead

Site	Where They Lived or Buried Their Dead	List Several Objects Found at this Site	Common Characteristics of These Objects	Other
Tel el Amarna	Lived and Buried their Dead	Torso of Meritaten Relief with Fan Bearers	Sunken Relief Figures	
Abydos	Buried Their Dead	Pottery Jar Jars and Dishes Ushabtis Funerary Stela	Decorated with Paint or Glaze-like Finish	

Identify some of the sites where Egyptians lived and buried their dead by matching sites to art works in the San Diego Museum of Man.

Name_____

Date_____

Hoja de Respuestas

Sitios Donde Vivieron Los Egipcios Y Donde Sepultaron Sus Muertos

Tabla de recuperación de información

Sitio	Donde Vivieron y sepultaron sus muertos	Enumere varios objetos encontrados en este sitio	Características Comunes de estos objetos	Otros
Tel el Amarna	Vivieron y sepultaron sus muertos	Relieve del torso de Meritaten con cargadores de abanicos	figuras hundidas en relieve	
Abydos	Sepultaron	Jarro de barro Jarro y platos ushabtis estela mortuaria	decorada con pintura o con un acabado de esmalte	

Identifique algunos de los sitios donde los egipcios vivieron y sepultaron a sus muertos, por medio de comparar los sitios con las obras de arte en el Museo del Hombre de San Diego.

Nombre_____

Fecha_____

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Key Terms in the Social Studies Text

1. Using your Houghton Mifflin Social Studies text [4] and images of art works in the San Diego Museum of Man exhibit, write a definition for each term and give one example showing how the term relates to an object in the exhibit.

Afterlife

Embalm

Mummy

Hieroglyphics

Pharaoh

Dynasty

[4] Armento, p. 191, 199.
Instructional material prepared by the San Diego County Office of Education and the San Diego Museum of Man in connection with the exhibit, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," which opened June, 1992.

2. Thirty different dynasties ruled ancient Egypt.[5] List three dynasties and their works of art in this exhibit.

3. Name three objects from the exhibit which can be attributed to the times before the dynasties began.

Name _____

Date _____

Note to teacher: These sheets are best used before and during a visit to the museum.

Before museum visit: 1) Students should research and write in definitions for the key terms using the text; 2) Students should read questions so they know what to look for at the museum.

At the museum: 1) Students observe objects individually or in groups and record information on their page; 2) Share and discuss findings as a class.

Extension: Have students make a diorama depicting the burial of a pharaoh in one of its stages. Include at least three objects from the exhibit. Have students write a description of their scene using the key terms.

[5] *Ibid.*, p. 190.

Instructional material prepared by the San Diego County Office of Education and the San Diego Museum of Man in conjunction with the exhibit, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," which opened June 1992.

Términos esenciales del texto de Estudios Sociales

1. Utilice su libro de texto de Estudios Sociales Houghton Mifflin y las imágenes de las obras de arte en la exhibición en el Museo del Hombre de San Diego, para escribir una definición de cada término y proporcione un ejemplo demostrando cómo se relaciona el término con el objeto en la exhibición.

Vida futura

Embalsamar

Momia

Jeroglíficos

Faraón

Dinastía

2. Tres diferentes dinastías gobernaron Egipto antiguo. Enumere tres dinastías y sus obras de arte en esta exhibición.

3. Nombre tres objetos de la exhibición que puede atribuirse a la época anterior a la dinastisa.

Nombre_____

Fecha_____

Nota al maestro: Estas hojas será mejor utilizarlas antes o mientras la visita al museo.

Antes de la visita al museo: 1) Los alumnos deberán investigar y escribir las definiciones de los términos esenciales utilizando el texto; 2) Los alumnos deben leer cada pregunta para que sepan aué buscar cuando vayan al museo.

En el museo: 1) Los alumnos observan objetos individualmente o en grupo y apuntan información en esta página; 2) Comparta y discuta con la clase lo hallado en la exhibición..

Extension: Que los alumnos hagan un diagrama que demuestra el sepulcro de un faraón en una de sus etapas. Incluya por lo mes tres objectos de la exhibición. Que los alumnos escriban una descripción de dicha escena utilizando los términos esenciales.

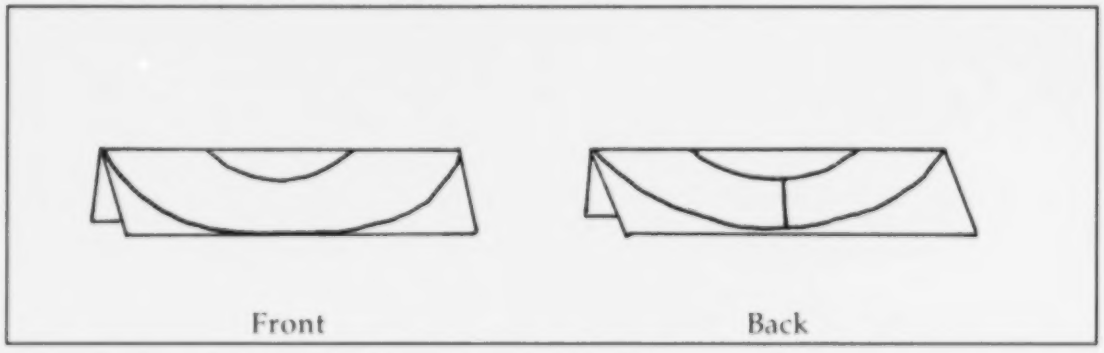
El material de instrucción fue preparado por la Oficina de Educación del Condado de San Diego y el Museo del Hombre de San Diego conjuntamente con la exhibición "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," el cual abrió en junio de 1992.

Non-Written Sources

The artists like those who made the sculptural reliefs in the San Diego Museum of Man give historians clues about the clothing worn by people in the past[6] as well as giving us beautiful images to see. Reliefs like these are a good source showing us the style of dress. Archaeological records do not usually include woven items like clothing because the fibers used deteriorate over time. Royalty usually wore pleated garments. Those who were overseers wore plain or pleated clothing.

Royal Collar and Costume

While observing the different works of art, note the clothing and symbolism in the royal collars (see mask in this guide). Students can make collars by folding yellow construction paper lengthwise and cutting out an arch.



Decorate patterns and symbols with felt pens, gold/silver paint pens, and foil.

Costumes can be made with white T-shirts, white towels, and white sheets. The Egyptians wore light weight cotton and transparent cloth. Different than the over-the-shoulder toga of the Greeks and Romans, the Egyptians wore long sleeveless tunics, wrap-around cloth "skirts," capes, and drapery on females around the shoulders and hips (see examples on the back cover).

Accompany the costume with sandals, make-up on eyes and eyebrows, and *lots* of jewelry.

[6] *Ibid.*, p. 57
Instructional material prepared by the San Diego County Office of Education and the San Diego Museum of Man in conjunction with the exhibit, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," which opened June, 1992.

Principles of Story Telling

There is an old saying that "a picture is worth a thousand words." Ancient Egyptian art with its many paintings and sculptural reliefs is filled with interesting pictures to talk or write about. In the San Diego Museum of Man there are several pictures like those on the Naos Shrine or mummy cartonage to choose from. Any one of these pictures will get students involved with the writing of historical fiction, mythology, and story telling.

Introduction
In order to teach students the concepts of genre in literature, middle school teachers can encourage their students to explore key works and to practice writing in the distinctive categories of literacy composition.

1. The goal of this unit is to integrate art and history of ancient Egypt to produce creative writing.
2. In this unit, students will write motorized fiction through the use of visuals, archaeological artifacts, and historical information. In addition, students will develop creative presentations of their stories.

Objectives – The students will:
1. produce at least one example of historical fiction, mythology, and story telling.
2. describe at least five key historical and mythological characters in ancient Egyptian history, especially the New Kingdom Period.
3. identify at least ten artifacts from the Egyptian exhibit at the San Diego Museum of Man.
4. name the essential elements of character development and plot.
5. create a mythological story based on the life of ancient Egyptian gods and royalty.

Materials
Images of Egyptian artifacts from the San Diego Museum of Man. Emphasis should be placed on objects that reflect important figures in Egyptian history. Literary references to historical fiction and mythology should be utilized.

Vocabulary
Akhenaten, Anubis, Horus, Isis, Nefertiti, Osiris, Maet, Menthuhotpe, Meritaten, mythology, stela

Instruction

1. Ask students what they know about ancient Egypt after you have told them the story of Osiris and Isis, an Egyptian god and goddess, and after they have seen pictures of these deities.[7]
2. Have students read the text themselves in small groups or other related readings about important figures in Egyptian history.
3. Ask students to respond to the text by:
   - Drawing main character
   - Illustrating a scene
   - Role playing characters in dialogue.
4. Show slides or prints from the San Diego Museum of Man that depict famous personalities in Egyptian history.
5. Review with students the nature of the writing assignment or narrative.

   To focus students on the particular attributes of these key figures, have them select three physical characteristics and three attributes of the god's role that will be described in a narrative. They can then take notes on the individual aspects of these characters.
6. Have students focus on one of the three given genres (historical narrative, mythology or story telling) in which to create their narrative.

   For those who choose historical narrative or mythology, explain the significance of becoming familiar with the culture and history of a particular era in order to write historical fiction or mythology.

   For those who choose to create a story for oral story telling, review the basic principles of story telling including setting, characterization, plot, and resolution.
7. As a final activity, ask students to review with you any questions they may have on Egyptian history or storytelling.

Suggestions for Assessment

1. Administer an oral or written quiz to the students to assess their knowledge of the vocabulary and time period.
2. Ask students to write a short (5-10 sentences) narrative using the four basic principles of fictional writing.
3. Assign students mini-portfolios in which to place recordings of their role playing or illustrated writing. Students will create their own narrative based on the lives of historical and mythological figures in ancient Egypt.
4. Students can illustrate their narratives with a book cover or pop-up book.

[7] *Ibid.*, p. 208

Egyptian Art and Poetry

Temples, ancient Egyptian tombs, and funerary objects were often covered with hymns of praise and inscriptions in rows of hieroglyphs. The patterns seem endless. The goal of this lesson is to introduce students to simple forms of patterns found in poetic expression. Poetry as a descriptive medium for discussing the art of ancient Egypt will be emphasized as well.

Discussion
In an effort to encourage students to become better observers of visual art, they should be focused on incorporating their observations into various forms of descriptive writing. Techniques for utilizing simple forms of poetry will also be discussed. Particular emphasis will be placed on reviewing parts of speech, learning basic poetic forms, and acquiring skills for observing visual art. The goal of this lesson is to introduce students to the basic techniques for viewing artifacts and incorporating their observations into poetry.

Objectives – The students will:

1. review the basic parts of speech including nouns, verbs, adjectives, adverbs, and prepositional phrases.
2. become acquainted with the hieroglyphic patterns on the Egyptian artifacts in the San Diego Museum of Man through field trips, slides, or text.
3. become aware of the acceptability of describing artifacts in a creative way.
4. review various forms of pattern poetry.
5. create an artifact poem of their own, along with a visual description of a great work of art.

Materials
Images of the objects in the Egyptian exhibition Materials for any art projects, such as watercolors, pastels, or colored pencils.

Vocabulary
Haiku, pattern poems, hieroglyphs, noun, verbs, adjectives, articles, conjunctions, adverbs, and prepositional phrases.

Instruction
1. Begin this lesson by reviewing the fundamental parts of speech: nouns, verbs, articles, conjunctions, adjectives, adverbs, and prepositional phrases.
2. Introduce various forms of pattern poetry which utilize parts of speech. Explain to students that these are not rhyming poems.

Some examples:

A. Article, adjective noun
Adverb, verb
Verb, noun
Article, noun, prepositional phrase

B. One article, one noun
One adjective, one conjunction, one adjective
One verb, one conjunction, one verb
One adverb
One noun that renames first line and one adjective

C. Haiku
Five syllables
Seven syllables
Five syllables

Figure 6: Nefertiti's Cartouche

3. Give students an opportunity to examine artifacts from the San Diego Museum of Man's exhibition on Egyptian art. This can be accomplished through slides, text or a visit to the show. Students should be observing color, function, subject matter, form, and technique.

4. Practice with students the method of combining observations of art with poetry. Below are poems which correspond with the various patterns.

A. The ancient mummy,
Silently resting,
Fascinate viewers
A reminder of the past.

B. Sacred cartouche,
Elegant and old,
Educates and fascinates,
Silently,
Splendid rtifact

C. Beautiful object
A reminder of the past
Speaks of old Egypt

5. As a closing activity, have students share with the class their ideas for their Egyptian pattern poems.

Extension

Have students illustrate their poems with various media. They may use watercolors, for example, to illustrate an object. The poems can be incorporated into other art projects, displays or portfolios.

Assessment

1. Quiz the students on their knowledge of parts of speech.

2. Have students share their pattern poems with the entire class. The class can attempt to guess which artifact the students are describing.

Biography Story Board

Select an important figure from Egyptian history and mythology from the list below. These represent characters and references found in the exhibition at the San Diego Museum of Man. Utilize your artistic abilities and research skills to design a story board based on the life of this famous individual or deity.

I. Choose from this list of famous personalities:

1. *Akhenaten* - Amenhotep IV, New Kingdom ruler (Amarna period).
2. *Anubis* - a jackal-headed god who conducted the dead to judgment.
3. *Horus* - the ancient Egyptian god of the sun, represented by having the head of a hawk.
4. *Isis* - winged goddess, wife of Osiris.
5. *Maet* - goddess of truth.
6. *Meritaten* - Akhenaten's eldest daughter
7. *Nefertiti* - Akhenaten's queen.

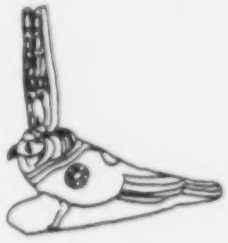
II. Materials:

Poster board, encyclopedias, library books, index cards, colored construction paper (optional), images, travel folders about Egypt, markers, stapler, scissors, tape, etc.

III. Your story board should include:

1. Title
2. Heading
3. Fact cards (10-15); each card should contain essential information on your character. The information can be based on legends and stories, and include personality traits and significance in history.

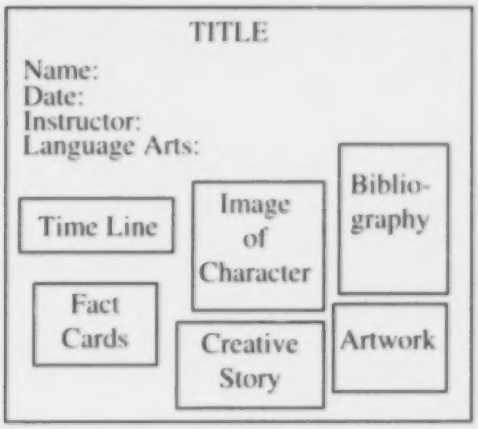
Fact Card
Deity Person
Physical Appearance:
Character Qualities:
"Family" History:
Significance in History:



4. Time line (place individual in historical perspective).
5. Picture of character (can be cut-out, drawing, or a photocopy you have hand colored).
6. Image of artifact that relates to character from exhibition.
7. Bibliography (at least two sources).
8. Creative story based on the life of the individual, god, or ruler.

Instructional materials prepared by the San Diego County Office of Education and the San Diego Museum of Man in conjunction with the exhibit, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," which opened June, 1992.

IV. Sample Board:



V. Remember, presentation counts. – Utilize your own creativity to arrange materials.

VI. Present your project to your classmates.

Assessment - Biography Story Board

Students will respond with these eight key elements: Title, Heading, Fact Cards, Time Line, Picture of Character, Image of Artifact, Bibliography, and Creative Story. Emphasis should be placed on Research and Aesthetics. Encourage students to create a Story Board that presents their information in an artistic and creative manner. Students should also gain oral language practice by presenting their projects to their classmates.

Instructional material prepared by the San Diego County Office of Education and the San Diego Museum of Man in conjunction with the exhibit, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," which opened June, 1992.

Tabla de una historia biográfica

Seleccione un personaje importante de la historia y mitología egipcio de la lista que sigue. Ellos representan personajes y referencias encontradas en la exhibición del Museo del Hombre de San Diego. Utilice sus habilidades artísticas y de investigación para diseñar un cartel de información basado en la vida de este individuo famoso.

I. Escoja de esta lista de personajes famosos:

1. *Akhenaten* - Amenhotep IV, soberano del Imperio Nuevo (período de Amarna)
2. *Anubis* - un dios con cabeza de chacal, quien dirigía a los muertos para ser juzgados
3. *Horus* - el antiguo dios egipcio del sol, representado por tener cabeza de un halcón
4. *Isis* - diosa con alas, esposa de Osiris
5. *Maet* - diosa de la verdad
6. *Meritaten* - la hija mayor de Akhenaten
7. *Nefertiti* - reina de Akhenaten

II. Materiales:

1. Cartulina
2. Tarjetas índice
3. Cartulina de colores (opcional)

III. La tabla de tu historia deberá incluir:

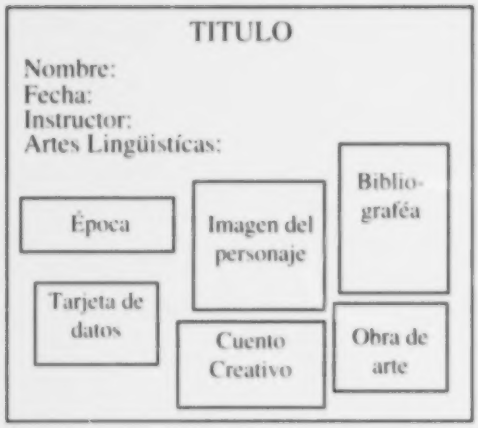
1. Título
2. Encabezado
3. Tarjetas de datos (l0-15). Cada tarjeta debe contener información esencial acerca de tu personaje. Esto puede basarse en leyendas o cuentos, personalidades, y la importancia histórica.

Tarjeta de datos
Deidad Personas
Apariencia física:
Cualidades del carácter:
Historial "Familiar":
Significado Histórico:

4. Línea de tiempo (colocar al individuo en perspectiva histórica).
5. Foto/Dibujo del personaje (puede ser cortado, dibujado, o fotocopiada).
6. Imagen del artefacto que se relaciona al personaje de la exhibición.
7. Bibliografía (por lo menos dos fuentes).
8. Una historia creativa basada en la vida del individuo, dios o soberano.

El material de instrucción fue preparado por la Oficina de Educación del condado de San Diego y el Museo del Hombre de San Diego, conjuntamente con la exhibición, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," el cual abrio en junio de 1992.

IV. Muestra de una Tabla:



V. Recuérdese que la presentación cuenta.
Utilice su propia creatividad para arreglar los materiales.

VI. Presentele a sus compañeros de clase su proyecto.

El material de instruccion fue preparado por la Oficina de Educacion del condado de San Diego y el Museo del Hombre de San Diego, conjuntamente con la exhibicion, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," el cual abrio en junio de 1992.

A Story of a Haunting Nature

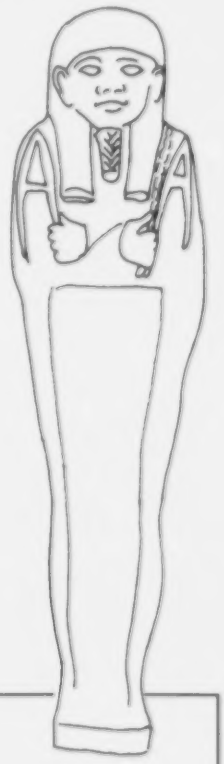
Create Your Own Mystery Using Egyptian Artifacts From the Past

Directions: Select one or more works of art from the exhibition at the San Diego Museum of Man. Write your own account of a mysterious event surrounding this object. Try to include the following artworks which reflect ancient Egyptian funerary practices:

1. Funerary Stela of Menthuhotpe
2. Funerary Statuette
3. Oval Shaped Basket
4. Ushabtis
5. Mummy Mask
6. Wooden Mask
7. Coffin Lid
8. Ptolemaic Mummy
9. Mask of a Bearded Young Man
10. Stela Dedicated to My-Ptah

Remember to include some basic elements of storytelling:

1. Setting the scene
2. Developing characters
3. Describing the event or mysterious happenings
4. Resolution (conclusion)



Assessment - A Story of a Haunting Nature

Students will respond with material that reflects their investigation of articles used in Egyptian funerary practices. These articles should be incorporated into a mysterious or haunting tale. Students may select objects such as the Ptolemaic mummy and the coffin lid. Be sure they review the four components of basic storytelling.

Instructional material prepared by the San Diego County Office of Education and the San Diego Museum of Man in conjunction with the exhibit, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," which opened June, 1992.

Un cuento de naturaleza inquietante

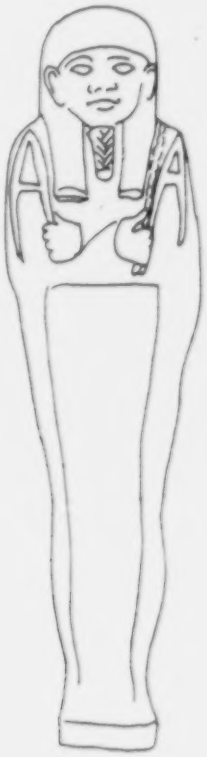
Crea su propio misterio utilizando artefactos egipcios antiguos

Direcciones: De la exhibición del Museo del Hombre de San Diego, seleccione una o más obras de arte . En sus propias palabras, escriba acerca de un evento misterioso que involucra este objeto. Trate de incluir las siguientes obras de arte que reflejan las practicas fúnebres egipcios:

1. Estela mortuoria de Menthuhotpe
2. Estatua Mortuoria
3. Canasto ovalado
4. Ushabtis ("contestador", figuras utilizadas para trabajar por los muertos en el más allá)
5. Estela dedicada a My-Ptah
6. Máscara de Madera
7. Tapadera de un ataúd
8. Momia de Ptolemaic
9. Máscara del Joven con Barba
10. Máscara de una momia

Recuérdese incluir alguno de los elementos básicos de un cuento:

1. Estableciendo la escena
2. Desarrollando personajes
3. Describiendo eventos o hechos misteriosos
4. Fin (conclusión)



El material de instrucción fue preparado por la Oficina de Educación del condado de San Diego y el Museo del Hombre de San Diego, conjuntamente con la exhibición, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," el cual abrio en junio de 1992.

C9

Interview a Pharaoh and His Queen

To prepare a fictional interview of two historical figures of ancient Egypt, complete the following:

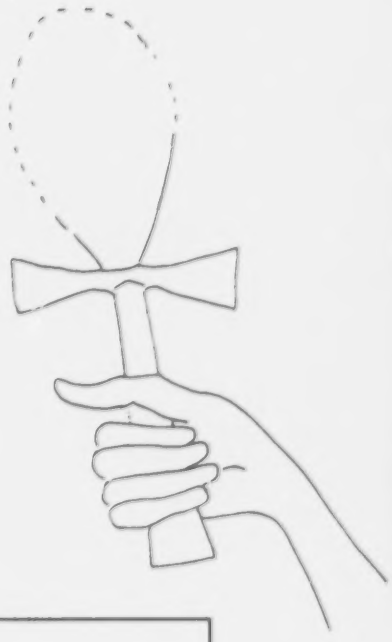
1. Research the life of this famous New Kingdom Egyptian couple, Akhenaten and Queen Nefertiti.

Suggested resources include such elements in your interview as artistic concerns, political interests, and religious practices during their New Kingdom (Amarna Period) reign beginning in 1378 B.C. For example, what was one noteworthy achievement of which Akhenaten was proud?

2. Develop ten or more questions based on their life and times.

*Challenger Activity: Develop several questions based on artifacts found in the Egyptian Exhibition at the San Diego Museum of Man. Examples:

1. Blue Kepresh Crown (worn by Akhenaten)
2. Cartouche of Akhenaten
3. Cartouche of Nefertiti
4. Nefertiti Holding an Ankh
5. Quartzite Torso of Akhenaten's Eldest Daughter Meritaten
6. Trial Piece of Nefertiti



Assessment - Interview a Pharaoh and His Queen

Students will familiarize themselves with some facts surrounding the life and times of Akhenaten and Queen Nefertiti. This can be accomplished through research, or a visit to the San Diego Museum of Man. They should then incorporate this information into their interview. This activity can be extended to include questions based on artifacts reflecting the life and times of this ruler and his queen.

Instructional material prepared by the San Diego County Office of Education and the San Diego Museum of Man in conjunction with the exhibit "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," which opened June, 1992.

61

Entrevista a un faraón y su reina

Para preparar una nen entrevista de dos personajes historicos del antiguo Egipto, complete lo siguiente:

1. Investigue la vida de Akhenaten y la reina Nefertiti, una paraja famosa del Imperio Nuevo Egipcio.

Incluya en su entrevista elementos tales como preocupaciones artísticas, intereses políticos y prácticas religiosas durante su reino del Imperio Nuevo empezando en 1378 A.D.

2. Desarrolle diez o más preguntas basándose en sus vidas y tiempos.

*Actividad de Reto: Desarrolle varias preguntas basadas en artefactos encontrados en la Exhibición Egipcio en el Museo del Hombre de San Diego. Ejemplos:

1. La corona azul Kepresh (usada por Akhenaten)
2. Figura oval que representa el nombre de Akhenaten
3. Figura oval que representa el nombre de Nefertiti
4. Nefertiti agarrando un Ankh
5. El torso cuarsita de Meritaten, hija mayor de Akhenaten
6. Escultura de Nefertiti de práctica

El material de instrucción fue preparado por la Oficina de Educación del condado de San Diego y el Museo del Hombre de San Diego, conjuntamente con la exhibicion, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," el cual abrio en junio de 1992.

62

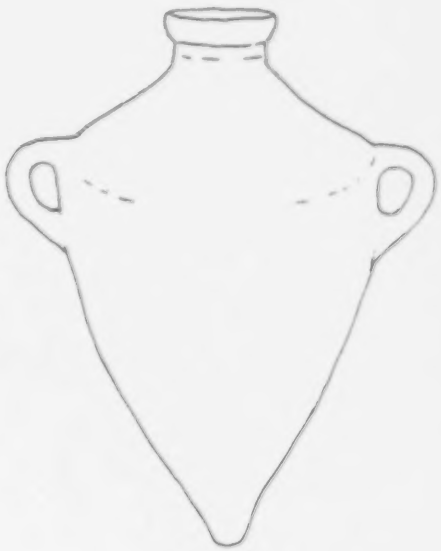
Journal Writing

Notes from an Amateur Archaeologist

Directions: Select an artifact from the exhibition at the San Diego Museum of Man. Take notes on the properties of this piece and the location in which it was found. The properties include its size, condition, color, shape, weight, the material it is made of, etc. The location includes the type of place where it was found (e.g., tomb, palace), and the name of the city where it was found. Describe in your own words how you uncovered this important work of art.

Archaeologist's Vocabulary:

- artifact
- burial site
- documentation
- excavate
- expedition
- hieroglyphics
- mummification
- dating



Assessment - Journal Writing - Notes from an Amateur Archaeologist

Students will respond to this creative writing and research assignment by selecting one object in the San Diego Museum of Man. After taking notes on any piece, they can use this information to create a fictionalized account of the object's discovery. The students should attempt to incorporate some of the key terms provided under Archaeologist's Vocabulary.

Instructional material prepared by the San Diego County Office of Education and the San Diego Museum of Man in conjunction with the exhibit, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," which opened June, 1992.

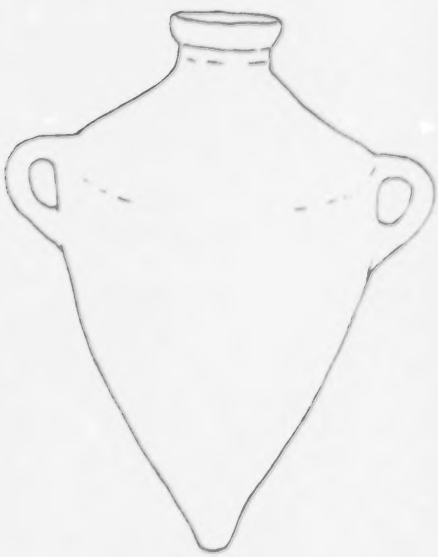
Escribiendo en un diario

Notas de un arqueólogo aficionado

Direcciones: Seleccione un artefacto de la exhibición del Museo del Hombre de San Diego. Tome nota de las propiedad de la pieza y en donde lo encentraron. Describa en sus propias palabras cómo encontró esta importante obra de arte.

Vocabulario de un arqueólogo:

- artefacto
- sitio de sepultura
- documentación
- excavar
- expedición
- jeroglíficos
- momificación



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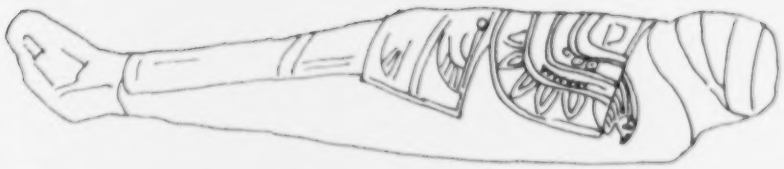
Synonym Game

Using a dictionary or thesaurus, find as many like or similar words for these key art historical terms.

Example: Artifact - Artwork

Artwork	Headdress	Stela
Burial	Hieroglyphics	Symbol
Cartouche	Mummy	Tomb
Coffin	Pharaoh	
Dynasty	Relief	
Faience	Scarab	



Assessment - Synonym Game

Students will respond with such similar terms as:

Artwork - object, artifact	Mummy - corpse
Burial - interment, funeral	Pharaoh - ruler
Cartouche - scroll-like tablet	Relief - projection
Coffin - sarcophagus, burial container	Scarab - beetle
Dynasty - rule	Stela - stone, slab
Faience - glazed pottery	Symbol - sign, character
Headdress - helmet, crown	Tomb - coffin
Hieroglyphics - writing	

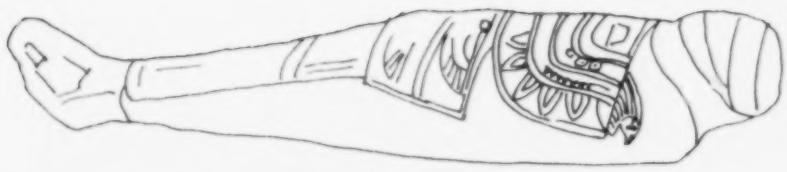
Instructional material prepared by the San Diego County Office of Education and the San Diego Museum of Man in conjunction with the exhibit, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," which opened June, 1992.

Juego de sinónimos

Encuentre todas las palabras similares para estos términos claves de historia del arte, usando un diccionario o direccionario de sinønimos y antónimos.

Ejemplo: Artefacto - Obra de arte

Obra de Arte	Tocado para la cabeza	Scarab
Entierro	Jeroglíficos	Estela
Cartucho	Momia	Símbolo
Dinastía	Faraón	Tumba
Alfarería de Faenza	Relieve	



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Extra, Extra

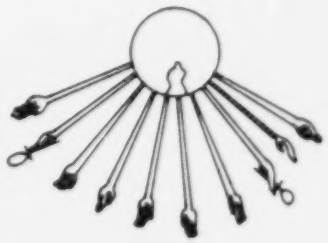
Write a newspaper article based on an Egyptian New Kingdom event. Remember to include aspects of journalistic writing such as Who, What, Where, When, and How.

Sample Ideas:

1. Akhenaten Proclaims Sun God, Aten, as The Only God
2. Nefertiti Crowned Queen
3. Stylistic Changes Found in Art of Amarna Period
4. Capital City Moved from Thebes to Tel el Amarna
5. Obituaries
6. Flood Celebration Activities
7. Tomb Robbers Captured

In order to write a news article on one of the events, you will need to gather information from one or more of the following sources:

1. Travel ads in Sunday newspapers
2. Egyptian travel brochures
3. Art books on Egypt
4. Encyclopedias



Assessment- Extra Extra

Students will respond to this writing assignment by familiarizing themselves with a major event of the New Kingdom. They can then use their creative writing skills to create a newspaper article based on this occurrence. The students also need to incorporate the aspects of journalistic writing such as who, what, where, when, and how, and provide a catchy title for their piece.

Instructional material prepared by the San Diego County Office of Education and the San Diego Museum of Man in conjunction with the exhibit, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," which opened June, 1992

Extra, Extra

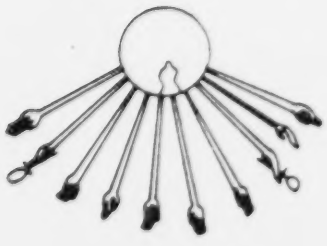
Escriba un artículo de periódico basado en un evento del Imperio Nuevo Egipcio. Recuérdese incluir elementos de reportero, tales como, Quién, Qué, Donde, Cuándo, y Cómo.

Ejemplos de Ideas:

1. Akhenaten proclama ser el Dios del sol, Aten, como el único Dios
2. Nefertiti fue coronada reina
3. Cambios estilísticos encontrados en el arte del período de Amarna
4. La ciudad capitalista se mudo de Tebas a Tel el Amarna
5. Obituarios
6. Las actividades de la celebración inundación
7. Los ladrones de tumbas han sido capturados

En order para escribir, un articulo noticiero de uno de los eventos arriba mencionados, necesitará recaudar información de alguna de las siguientes fuentes:

1. Anuncios de viajes en los periódicos del domingo
2. Bolletos de viajes Egipcios
3. Libros de arte egipcio
4. Enciclopedias



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C3

Selected Hieroglyphs
in the San Diego Museum of Man

(Hieroglyphs may be written from right to left or reversed left to right)

Type of Image	Image(s)	Meaning	Objects Upon Which They Appear
Man		Seated Man	My-Ptah Stela
Woman	a. b.	a. Seated Woman b. Seated Queen	a. Torso Inscription b. Nefertiti Cartouche
Parts of the Human Body	a. b.	a. Mouth b. Eye (to make)	a. My-Ptah Stela b. Menthuhotpe Stela, Coffin Lid, Ushabtis
Parts of Mammals	a. b. c.	a. Oxen b. Fox furs c. Windpipe and Heart (means goodness, beautiful, and related words) Nefer	a. Coffin Lid, Menthuhotpe Stela and Statue b. Ushabti, Torso Inscription c. Nefertiti Cartouche, My-Ptah Stela

Birds	a. b. c. d.	a. Owl b. Quail Chick c. Pintail Duck (son or daughter with determinative) d. Pintail Duck	a. Funerary Statuette b. Stela of Menthuhotpe, My-Ptah Stela, Yaya and Menna Stela c. Yaya and Menna Stela, Naos Shrine, My-Ptah Stela d. Ushabti
Parts of Birds	a. b.	a. Duck Head b. Feather (Maet: truth)	a. Coffin Lid, Menthuhotpe Statue and Stela b. Yaya and Menna Stela
Crowns, Dress, Staves, Etc.	 a. b.	a. Sandal as the Ankh symbol (life) b. Folded Cloth	a. Nefertiti with Ankh, My-Ptah Stela, below Nefertiti Cartouche b. Meritaten Torso Inscription
Agriculture, Crafts, and Professions	 a. b.	a. Hoe (beloved) b. Ti (she) (pestle)	a. Ushabti b. Nefertiti Cartouche

Instructional material prepared by the San Diego County Office of Education and the San Diego Museum of Man in conjunction with the exhibit "Life and Death in the Nile Valley: Gods and Monuments in Ancient Egypt" which opened June, 1992.

Rope, Fiber, Baskets, Bags	a. b. c.	a. Shen Ring (eternity) b. Twisted Rope c. Basket or bowl with Ankh means "lord," with female determinative means "lady"	a. My-Ptah Stela b. Inscription below Nefertiti Cartouche, My-Ptah Stela c. Nefertiti
Vessels of Stone and Earthenware	a. b.	a. Khent (in front of) Pot Stand with Water Pots in a Rack b. Beer Jug	a. Coffin Lid b. Coffin Lid
Loaves and Cakes	a. b.	a. Cake (female determinative) b. Conical Bread Loaf (give, given) gift	a. Nefertiti Cartouche, Torso Inscription b. Funerary Statuette, Stela of Menthuhotpe, Coffin Lid, Backside of Relief with Fanbearers in Procession
Strokes	a. b.	a. Two diagonal strokes, the letter "y" b. Three strokes, means plural	a. Nefertiti Cartouche b. Coffin Lid
Reptiles	a. b.	a. Cobra in repose b. Horned Viper	a. My-Ptah Stela, below Nefertiti Cartouche, Ushabti b. Coffin Lid, My-Ptah Stela

Invertebrates and Lesser Animals		Scarab Beetle (new life)	Akhenaten Cartouche
Trees and Plants	a. b. c.	a. Reed b. Walking Reed, Stylized Reed c. Sedge Plant (south)	a. Nefertiti Cartouche b. Nefertiti Cartouche c. Funerary Statuette, Stela of Menthuhotpe, Coffin Lid
Sky, Earth, Water	a. b. c. d. e.	a. Sun b. Ha, "Foreign Land" (the west) c. Mountain d. Water (MW) e. Water = to (n)	a. Nefertiti Cartouche, Akhenaten Cartouche b. Coffin Lid c. Coffin Lid d. Naos Shrine, Stela My-Ptah e. Coffin Lid, Akhenaten Cartouche, Funerary Statuette, Torso Inscription, Nefertiti Cartouche
Buildings, Parts of Buildings, etc.	a. b.	a. House b. Crossroads with a Wall	a. Coffin Lid, Funerary Statuette, Menthuhotpe Stela b. Coffin Lid

Domestic and Funerary Furniture		Throne or Chair (Symbol of Isis)	Coffin Lid, Ushabtis
Temple Furniture and Sacred Emblems	a. b.	a. Banner (means "god") b. Ament The West (Horus the Falcon).Standard with a figure of a falcon - emblem of the west	a. Coffin Lid b. Coffin Lid
Tools and Weapons		"Sole," "only" one barbed harpoon (means one)	Akhenaten Cartouche

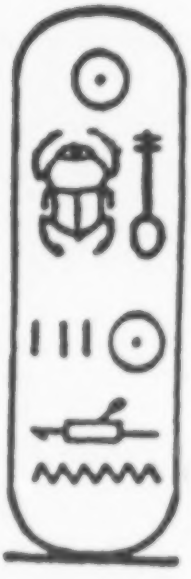

Figure 7: *Akhenaten's Cartouche*

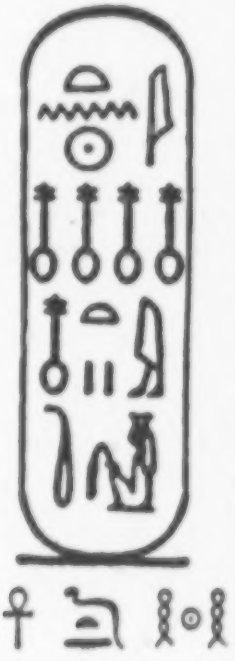

Figure 8: *Nefertiti's Cartouche*

Jeroglíficos Selectos
del Museo del Hombre de San Diego

(Los jeroglíficos pueden ser escritos de derecha a izquierda o de izquierda a la derecha)

Tipo de imagen	Imagen(es)	Signficado	Objetos donde aparecen
Hombre		Hombre Sentado	Estela My-Ptah
Mujer	a. b.	a. Mujer sentada b. Reina sentada	a. Inscripción en el torso b. Cartucho de Nefertiti
Partes del cuerpo humano	a. b.	a. Boca b. Ojo (hacer)	a. Estela My-Ptah b. Estela de Menthuhotpe, tapadera de ataúd
Partes de Mamíferos	a. b. c.	a. Buey b. Piel de Zorro c. Traquéa y corazón (significa bondad, belleza y palabras relacionads con estos conceptos) Nefer	a. Tapadera de un ataúd b. Inscripción del torso de Ushabti c. Cartucho de Nefertiti, Estela My-Ptah

El material de instruccion fue preparado por la Oficina de Educacion del condado de San Diego y el Museo del Hombre de San Diego, conjuntamente con la exhibicion, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," el cual abrio en junio de 1992.

Pájaros	a. b. c. d.	a. Búho b. Pollito de Codorniz c. Pato con cola larga con definición d. Pato con cola larga	a. Estatua Fúnebre b. Estelas de Menthuhotpe, My-Ptah, y Yaya y Menna c. Estela de Yaya y Menna, Relicario de Naos, estela My-Ptah d. Ushabti
Partes de pájaro	a. b.	a. Cabeza de Pato b. Pluma (Maet)	a. Tapadera de un ataúd, Estatua y Estela de Menthuhotpe b. Estela Yaya y Menna
Coronas, Vestidos, Estacacas, Etc.	a. b.	a. Sandalias, significa Ankh b. Trapo doblado	a. Nefertiti con Ankh, My-Ptah Stela, abajo cartucho de Nefertiti b. Inscripción de Torso Meritaten
Agricultura, Artesanias y Profesiones	a. b.	a. Azada b. Ti (ella)	a. Ushabti b. Cartucho de Nefertiti

El material de instrucción fue preparado por la Oficina de Educación del condado de San Diego y el Museo del Hombre de San Diego, conjuntamente con la exhibición, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," el cual abrio en junio de 1992.

Lazo, Fibra, Canastas, Bolsas, Etc.	a. b. c.	a. Anillo de Shen (eternidad) b. Lazo enrollado c. Canasta u con Ankh significa "señor," determinante femenino significa, "dama"	a. Estela My-Ptah b. Inscripción de bajo del cartucho de Nefertiti c. Cartucho de Nefertiti
Vasija de Piedra y loza de barro	a. b.	a. Khent (enfrente de) pedestal cantaros con cantaros de agua en una rejilla b. Jarro de cerveza	a. Tapadera de Ataúd b. Tapadera de Ataúd
Panes y Pasteles	a. b.	a. Pastel (determinante femenino) b. Pan cónico (dar, dado) regalo	a. Cartucho de Nefertiti, Inscripción de Torso b. Estatua de Fúnebre Menthuhotpe, Tapadera de Ataúd, Parte de atrás del relieve, cargadores de abanicos.
Ataques	a. b.	a. Dos trazos de pluma, la letra "y" b. Tres trazos significa plural	a. Cartucho de Nefertiti b. Tapadera de Ataúd

El material de instruccion fue preparado por la Oficina de Educacion del condado de San Diego y el Museo del Hombre de San Diego, conjuntamente con la exhibicion, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," el cual abrio en junio de 1992.

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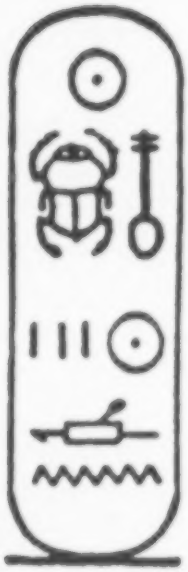
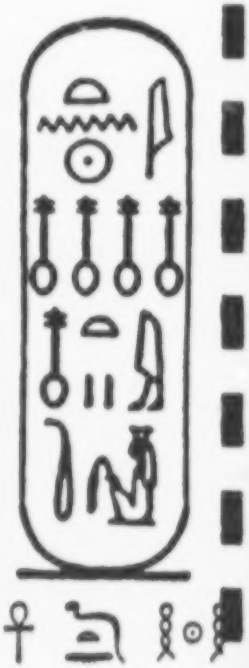
Reptiles	a. b.	a. Un cobra descansando b. Víbora con cuernos	a. Estela My-Ptah, Cartucho Nefertiti, Ushabti b. Tapadera de Ataúd, Estela My-Ptah
Intervertébrales y animales inferiores		Escarabajo Scarab (nueva vida)	Cartucho de Akhenaten
Árboles y Plantas	a. b. c.	a. Caña b. Caña para caminar c. Juncia (sur)	a. Cartucho de Nefertiti b. Cartucho de Nefertiti c. Estatua Fúnebre, Estela de Menthuhotpe, Tapadera de Ataúd
Cielo, Tierra, Agua	a. b. c. d. e.	a. Sol b. Ha "Tierra Extranjera" (el oeste) c. Montaña d. Agua (MW) e. Agua = to (n)	a. Cartucho de Nefertiti, Cartucho de Akhenaten b. Tapadera de Ataúd c. Tapadera de Ataúd d. Relicario de Naos, Estela My-Ptah e. Tapadera de Ataúd, Cartucho de Akhenaten, Estatua Fúnebre, Inscripción de torso, Cartucho de Nefertiti

El material de instrucción fue preparado por la Oficina de Educación del condado de San Diego y el Museo del Hombre de San Diego, conjuntamente con la exhibición, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," el cual abrió en junio de 1992.

Edificios, Partes de Edificios, etc.	a. b. 	a. Casa b. Camino transversal con pared	a. Tapadera de Ataúd, Estatua Fúnebre, Estela de Menthuhotpe b. Tapadera de Ataúd
Muebles Domesticos y Funebres		Trono o silla (simbolo de Isis)	Tapadera de Ataúd, Ushabtis
Muebles del Templo y emblemas sagradas	a. b. 	a. Un faja significa "Dios" b. Ament el Oeste (Horus el alcón).	a. Tapadera de Ataúd b. Tapadera de Ataúd
Herramientas y armas		"Solo," "único"	Cartucho de Akhenaten



Fotografía 9: Cartucho de Akhenaten



Fotografía 10: Cartucho de Nefertiti

El material de instruccion fue preparado por la Oficina de Educacion del condado de San Diego y el Museo del Hombre de San Diego, conjuntamente con la exhibicion, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," el cual abrio en junio de 1992

Hieroglyphic Information Retrieval Chart

Museum Catalog Number/ Name	Date, Year or Dynasty	Message	Location of Message	Appearance of Symbols Used	Site or Origin Where Relief/Sculpture Found	Other
Coffin Lid Cartouche of Akhenaten Inscription on Torso		To				
Cartouche of Akhenaten		He who came forth				
Cartouche of Nefertiti Broken Inscription on Torso		Aten				
Coffin Lid		gives				
Private Stela with Yaya and Menna		The Letter "Y" (Phonetic)				

Instructions: Study the hieroglyphs in the San Diego Museum of Man Exhibition. List information about four examples of hieroglyphs on the retrieval chart above. Make your own chart for another category of art works.

Name _____
Date _____

Instructional material prepared by the San Diego County Office of Education and the San Diego Museum of Man in conjunction with the exhibit, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," which opened June, 1992.

Tabla de Recuperación de Información de Jeroglíficos

Número/ Nombre de la adquisición	Fecha, Año o Dinastía	Mensaje	Lugar del Mensaje	Apariencia de los símbolos utilizados	Sitió u Origen donde se encontro el relieve/ esculptura	Otros
Tapadera Ataúd Cartucho de Akhenaten Inscripción del torso		de				
Cartucho de Akhenaten		Aquel quien vino				
Cartucho de Nefertiti Inscripción del torso quebrada		Aten				
Tapadera del Ataúd		da				
Estela privada de Yaya y Menna		la letre 'y' fonetico				

Instrucciones: Estudie los jeroglíficos de la exhibición del Museo del Hombre de San Diego. Enumere información acerca de los cuatro ejemplos de jeroglíficos que aparecen en la tabla anterior. Haga su propia tabla para otra categoria de trabajos artes.

Nombre _____

Fecha _____

El material de instrucción fue preparado por la Oficina de Educación del Condado de San Diego y el Museo del Hombre de San Diego, conjuntamente con la exhibición, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," el cual abrió en junio de 1992.

Answer Sheet - Hieroglyphic Information Retrieval Chart

Answer Sheet - Hieroglyphic Information Retrieval Chart

Museum Catalog Number/ Name	Date, Year or Dynasty	Message	Location of Message	Appearance of Symbols Used	Site or Origin Where Relief/Sculpture Found	Other
Coffin Lid Cartouche of Akhenaten Inscription on Torso	ca 750-332 B.C. New Kingdom 18th Dynasty New Kingdom 18th Dynasty	To	Top of Inscription Base of Cartouche Top of Inscription	~~~~	Unknown Tel el Amarna Broad Hall Tel el Amarna	Painted Wood Broken on Right Side Back of Sculpture
Cartouche of Akhenaten	New Kingdom 18th Dynasty	He who came forth	Top of Cartouche		Tel el Amarna	Traces of Blue Paint
Cartouche of Nefertiti Broken Inscription on Torso	New Kingdom 18th Dynasty New Kingdom 18th Dynasty	Aten	Top of Cartouche Top of Inscription		Tel el Amarna Tel el Amarna	Household Shrine (Backwards)
Coffin Lid	Late Period ca 750-332 B.C.	Gives	Top of Inscription		Unknown	Presenting Food Offerings
Private Stela with Yaya and Menna	Late Period	The Letter "r" (Phonetic)	Upper Right		Tel el Amarna	Hieroglyphs Painted in Blue

Instructions: Study the hieroglyphs in the San Diego Museum of Man Exhibition. List information about four examples of hieroglyphs on the retrieval chart above. Make your own chart for another category of art works.

Tabla de Recuperación de Información de Jeroglíficos

Hoja de respuestas

Número/ Nombre de la adquisición	Fecha, Año o Dinastía	Mensaje	Lugar del Mensaje	Apariencia de los símbolos utilizados	Sitio U Origen donde se encontro el relieve/ escultura	Otros
Tapadera Ataud Cartucho de Akhenaten Inscripción del torso	750 - 332 A.D. Imperio Nuevo Dinastía 18 Imperio Nuevo Dinastía 18	de	Arriba de la inscripción. En la base del cartucho. Arriba del cartucho	~~~~	Desconocido Tel el Amarna Vestíbulo Ancho de Tel el Amarna	Madera pintada Quebrada en el lado derecho Atras de la escultura
Cartucho de Akhenaten	Imperio Nuevo Dinastía 18	Aquel quien vino	Arriba del cartucho		Tel el Amarna	Indicios de pintura azul
Cartucho de Nefertiti Inscripcion del torso quebrada	Imperio Nuevo Dinastía 18 Imperio Nuevo Dinastía 18	Aten	Arriba del Cartucho Arriba del tragmento de inscripcion		Tel el Amarna Tel el Amarna	Santuario en el hogar
Tapadera del Ataud	Final del Periodo ca 750-332 A.C.	de	Encima de la inscripcion		Desconocido	Presentando ofrendas de comida
Estela privada de Yaya y Menna	Final del Periodo	la letre "r" fonetico	Arriba a la derecha		Tel el Amarna	jeroglificos

Instrucciones: Estudie los jeroglíficos de la exhibición del Museo del Hombre de San Diego. Enumere información acerca de los cuatro ejemplos de jeroglíficos que aparecen en la tabla anterior. Haga su propia tabla para otra categoría de trabajos artes.

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Similarity in Egyptian Art

Mathematics

To extend their understanding of patterns, students might study the fixed ratios and fixed relations in the methods Egyptian artists used to indicate the proportions of the individual parts of the body when making figures of different sizes.

In this activity combining mathematics and art, students will study their own three-dimensional human bodies and the way the ancient Egyptian artist idealized/standardized the human shape and illustrated it in ancient Egyptian art in the San Diego Museum of Man collection.

1. Superimpose a grid over the reproduction of an image fragment. To accomplish this, measure enough parts of the visible human figure to figure out the proportions of the missing parts of the relief. For example, in the relief from the column drum depicting Nefertiti holding an ankh, have the students measure the hand (holding the horizontal object) of the person standing in front of Nefertiti, the hand holding the sistrum behind Nefertiti, as well as Nefertiti herself, and plot a complete relief with three figures. Keep in mind artistic representations of ancient Egyptian royalty may be many times larger than those in this exhibit.
2. Have each student use the method used by ancient Egyptians to express fixed ratios and fixed relations in the proportions of the student's own body parts by:
   A. Measuring his/her handbreadth, fist, and/or fingers to arrive at a personal unit of measure.
   B. Constructing two scale drawings of different sizes using the student's Personal Canonic Distance measures. For example, the student could construct on an 18 square grid (the side of one square to equal his or her own fist measurement), one small drawing of the human figure in contemporary clothing and hairstyle for a room-size picture, and one larger-than-life-size drawing of the human figure representing a self-portrait of the student.

Egyptian Canon

Diodorus Siculus (of Sicily) correctly described in the first book of his history the method used by Egyptian workmen when making human images. It has been shown that from the Twelfth to the Eighteenth Dynasty (the time of the Amarna style) the division was essentially based on 18 squares equaling the height of a man. By the Saite period, 21 squares represented the third and final canon in Egyptian art.

Canonic Distances in the Amarna Period

The basic unit in ancient Egyptian art during the Amarna period was measured in terms of handbreadths, fists, and fingers. The width of a fist equalled the side of a square. The height of an adult equalled the distance of 18 sides of squares or fist widths. The fingers were also used as measures. One fist width equaled one side of a square. The sides of 18 squares equaled the height of a man. One and one-third handbreadths equals $5^{1/3}$ fingers. A fist equals 4 fingerbreadths. The height of the standing male figure of 18 squares is 18 fists, 24 handbreadths or 96 fingers. The distance from the elbow to the armpit is 12 fingers or fists. The distance from the elbow to the measuring point at the forehead is 32 fingers or 8 fists or 6 squares. The distance from the elbow to the base of the neck is $21^{1/3}$ fingers or 4 squares. The distance above the eyelid measures 8 fingers. The fixed ratios which determine the relative positions such as the eyelid, base of nose, lips, navel, nipples, etc., have been standardized by ancient Egyptian artists through a measure based on fists, fingers, and fractions of fingers.

Squared Grid

In Egyptian art a squared grid provided a basis for the schematic delineation of the actual proportions of the parts of the human body. By using this grid the ancient artists (and viewers) believed these proportions were properly expressed in each individual representation.

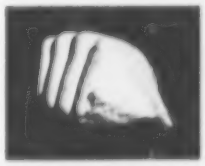
Any workman could make a figure. All he needed to know was in which squares the different parts of the human body were to be placed.

Rectilinear Solids and Planes

From sculptural models preserved in museums, we know the ancient Egyptian artists studied the complex natural shape of the human body in terms of fixed ratios and fixed relations to one another. When carved in 3-D, the body could be positioned within a rectilinear solid. When the body was represented on a plane as in reliefs, the following standard formula for human proportions on a two-dimensional surface area was used (not an actual measure of area, but a system of coordinates, with the same measurements in two dimensions, length and breadth). Because coordinate systems are a major vehicle of mathematical representation, students might work with this ancient coordinate system used to represent fixed relationships.

The Width of a Fist as a Unit of Measure

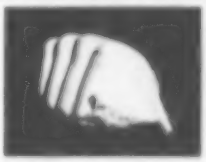
In ancient Egyptian art the finer division of squared grids, based on parts of the body, was used primarily for main figures. Servants, slaves, and other minor figures were not treated as if this canon of proportions were as essential.

The Unit of Measure
 Figure 11: *Fist*
1 square side = the width of a fist (This fist is from a colossal sandstone statue of the New Kingdom)

18 square sides	=	the distance from the line of the soles of the feet to the top of the head where the wig joins the forehead.
3 square sides	=	the distance marking the full length of a human foot from the heel to the joint of the big toe or from the heel to the point where the foot leaves the ground when the foot is bent at the big toe (Scripps SDM #14736, Kneeling Figure).
3 square sides	=	the distance from the base or ground line to the middle of the calf.
3 square sides	=	the distance from the middle of the calf to the line immediately above the knee.
3 square sides	=	the distance from the line immediately above the knee to the middle of the wrist. This line (9 squares from ground level) divides the figure into two equal parts.
3 square sides	=	the distance from the mid-figure to the elbow.
3 square sides	=	the distance from the elbow to a line that cuts the shoulder above the armpits.
3 square sides	=	the distance from the line that cuts the shoulder above the armpits to the point where the wig joins the forehead.
4 1/2 square sides	=	the distance from the elbow to the tip of the thumb.
3 square sides	=	the distance from the elbow to the wrist.

El ancho de un puño como unidad de medida

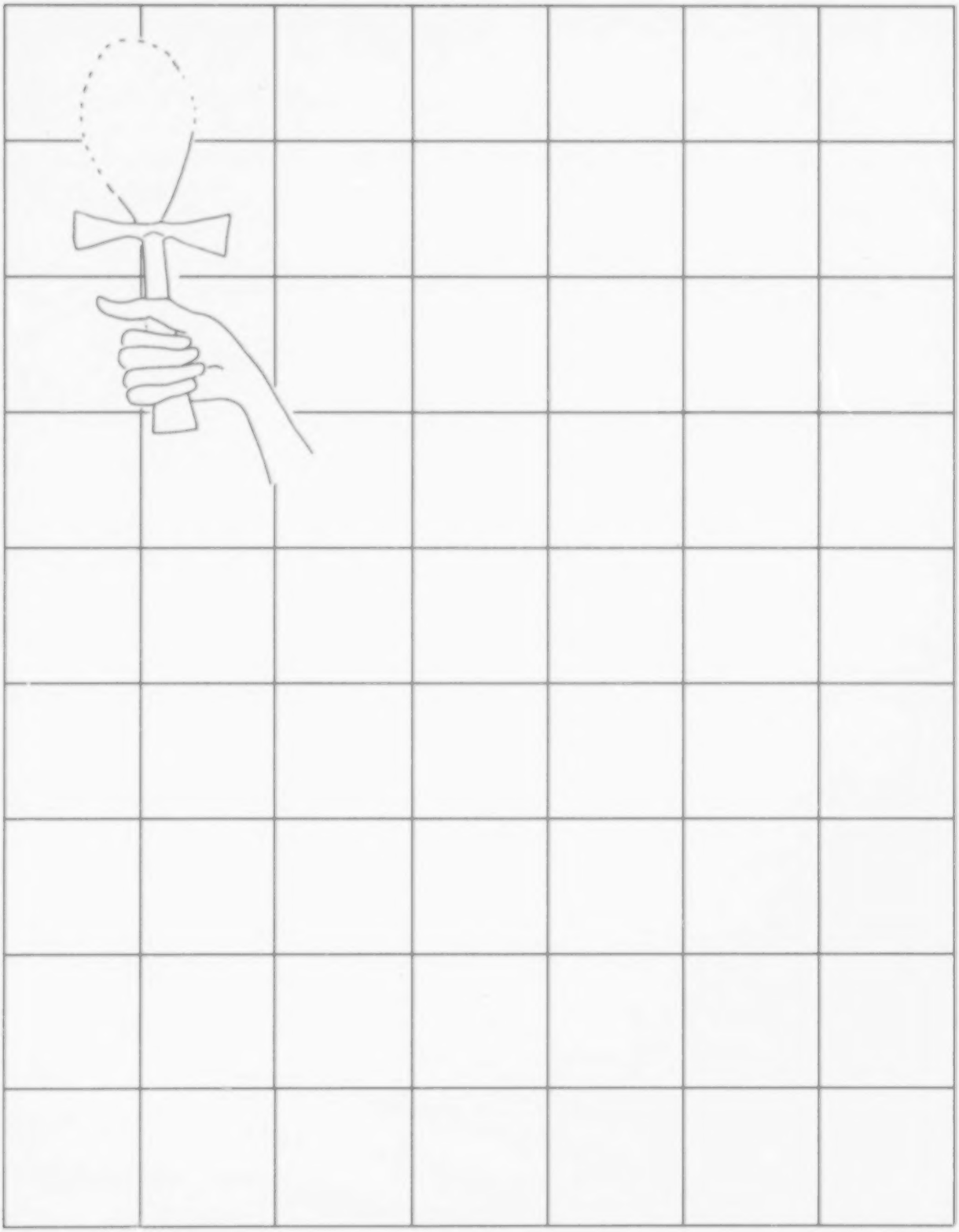
En el arte egipcio antiguo, la división más fina en cuadrículas se utilizo fundamentalmente para figuras principales. Para los sirvientes, esclavos y otras figuras inferiores, estas reglas de proporción no se consideradaron esenciales.

La unidad de medida
 Un lado cuadrado = ancho de un puño

Fotografía 12: *Un puño*

18 lados cuadrados	=	la distancia desde las suelas de los pies a la punta de la cabeza, donde se une la peluca con la frente.
3 lados cuadrados	=	la distancia que representa el largo entero de un pie humano desde el talón hasta la articulación del dedo gordo o del talón hasta el punto donde el dedo deja el piso cuando el pie esta de puntilla (Scripps SDM #14736, Figura Arrodillada).
3 lados cuadrados	=	la distancia desde la línea base o del piso hasta en medio de la pantorrilla.
3 lados cuadrados	=	la distancia desde la mitad de la pantorrilla hasta la línea inmediatamente encima de la rodilla.
3 lados cuadrados	=	la distancia de la línea inmediatamente encima de la rodilla a media muñeca. Esta línea (9 cuadros del nivel de la tierra) divide la figura en dos partes iguales.
3 lados cuadrados	=	la distancia desde la mitad de la figura hasta el codo.
3 lados cuadrados	=	la distancia del codo hasta la línea que corta el hombro arriba de las axilas.
3 lados cuadrados	=	la distancia desde la línea que corta el hombro encima de las axilas, hasta el punto donde la peluca se une a la frente.
4 1/2 lados cuadrados	=	la distancia desde el codo a la punta del dedo gordo.
3 lados cuadrados	=	la distancia desde el codo a la muñeca.
1 lado cuadrado	=	el ancho de un puño.

El material de instrucción fue preparado por la Oficina de Educacion del condado de San Diego y el Museo del Hombre de San Diego, conjuntamente con la exhibicion, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," el cual abrio en junio de 1982.



Name _____

Date _____

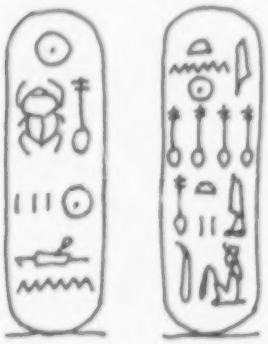
Instructional material prepared by the San Diego County Office of Education and the San Diego Museum of Man in conjunction with the exhibit, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," which opened June, 1992.

Reasoning from Graphs

Mathematics

Make a frequency table and graph to show how often hieroglyphs are used in your Houghton Mifflin Social Studies text and on the inscriptions found in the exhibit.

Use the inscriptions below for your frequency table:



1. Page 54 of text[8]
2. Page 196 of text
3. Page 205 of text
4. Torso Inscription
5. Cartouche of Akhenaten
6. Cartouche of Nefertiti

HIEROGLYPH FREQUENCY TABLE							
Whole Images	Tally						Frequency
	Page 54	Page 196	Page 205	Torso Inscription	Akhenaten Cartouche	Nefertiti Cartouche	

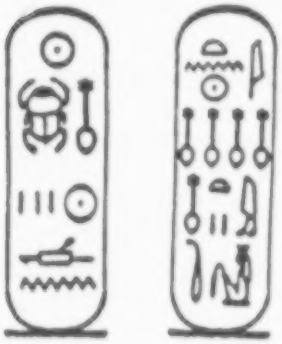
[8] *Ibid.*, pp. 54, 196, 205

Instructional material prepared by the San Diego County Office of Education and the San Diego Museum of Man in conjunction with the exhibit, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," which opened June, 1992.

Interpretando las gráficas

Haga una tabla y gráfica demostrando con qué frecuencia se utilizan los jeroglíficos en su texto de Estudios Sociales, Houghton Mifflin, y en las insciptciones encontradas en la exhibición.

Use las siguientes inscripciones para su tabla:



1. Página 54 del texto
2. Página 196 del texto
3. Página 205 del texto
4. Cartucho de Akhenaten
5. Cartucho de Nefertiti
6. Inscripción del torso

Tabla de la frecuencia de los jeroglíficos							
Imagenes Enteras	Tarja						Frecuencia
	Pagina 54	Pagina 196	Pagina 205	Inscripcion del Torso	Akhenaten Cartucho	Nefertiti Cartucho	

El material de instrucción fue preparado por la Oficina de Educación del Condado de San Diego y el Museo del Hombre de San Diego conjuntamente con la exhibición "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," el cual abrió en junio de 1992.

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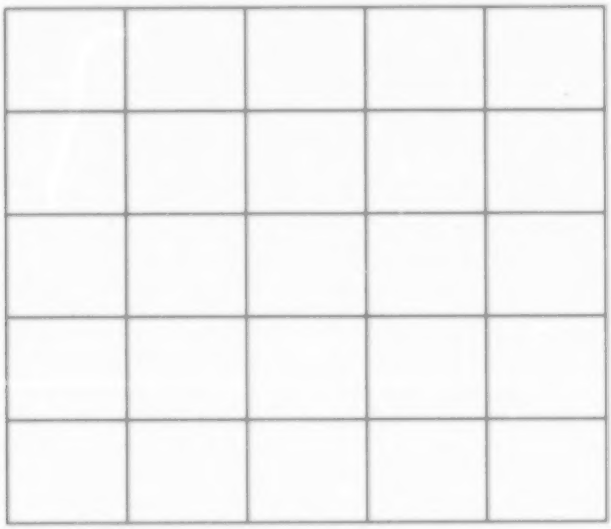
Multiple Representation

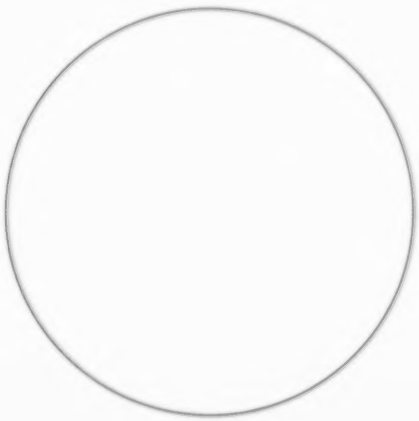
Now that you have the data, represent it in different ways.

Hieroglyph Frequency Bar Graph



Design other graphs with the data. For example, what would a circle graph look like? (Give the percentages).

Hieroglyph Frequency Circle Graph



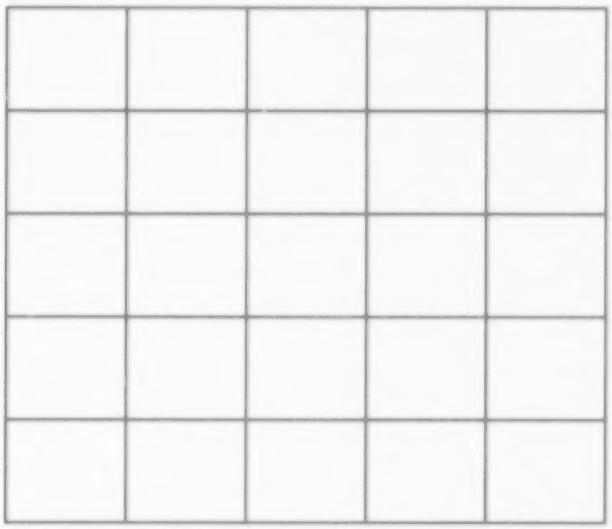
Make up questions about your graphs. Explain what your graph tells you. Explain why you made the graphs the way you did.

Instructional material prepared by the San Diego County Office of Education and the San Diego Museum of Man in conjunction with the exhibit, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," which opened June, 1992.

Representaciones Múltiples

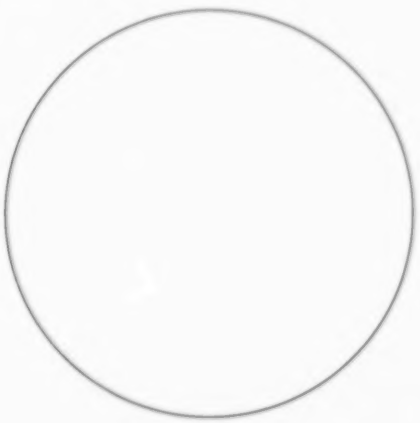
Ahora que ya tiene los datos, represéntelos en diferentes formas.

Gráfica de la Frecuencia de los Jeroglíficos



Diseñe otras gráficas con los datos. Por ejemplo, ¿cómo se miraría una gráfica circular?.

Gráfica circular de la frecuencia de los jeroglíficos



Formule preguntas acerca de sus gráficas. Explique qué es lo que te dice la gráfica. Explique por qué hizo sus gráficas de esa manera.

El material de instrucción fue preparado por la Oficina de Educación del Condado de San Diego y el Museo del Hombre de San Diego, conjuntamente con la exhibición, *Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt*, el cual abrió en junio de 1992.

Answer Sheet - Mathematics

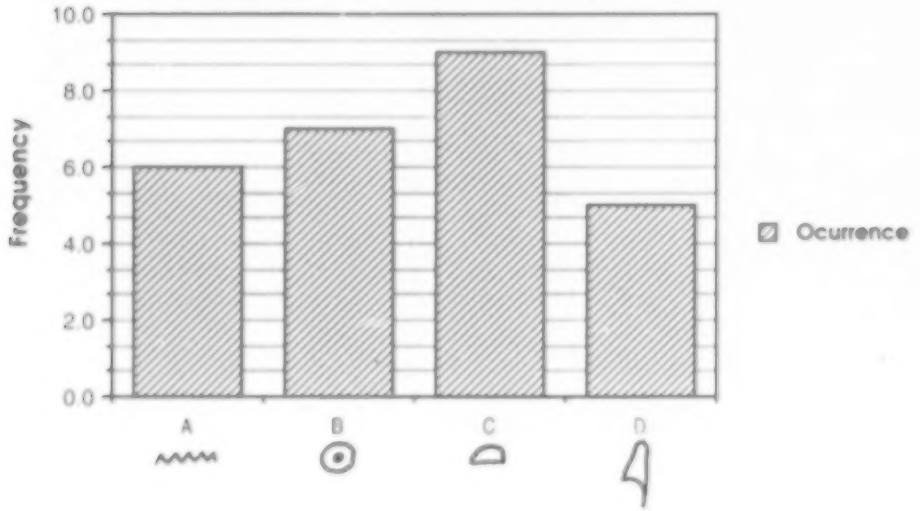
HIEROGLYPH FREQUENCY TABLE							
Whole Images	Tally						Frequency
	Page 54	Page 196	Page 205	Torso Inscription	Akhenaten Cartouche	Nefertiti Cartouche	
	II		I	I	I	I	6
	III			I	II	I	7
	IIII	I	I	I		II	9
	I	III				I	5

Hoja de respuesta - Matemáticas

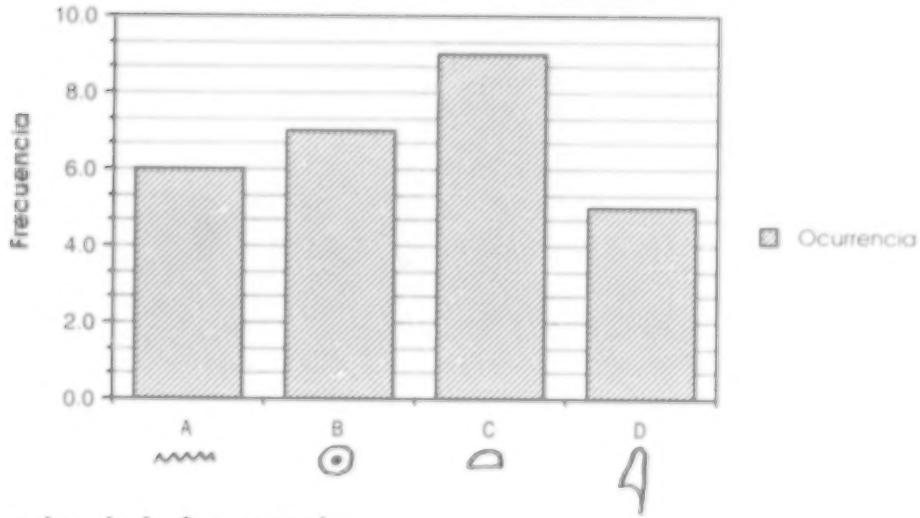
Tabla de la frecuencia de los jeroglíficos							
Imágenes Enteras	Tarja						Frecuencia
	Pagina 54	Pagina 196	Pagina 205	Inscripcion del Torso	Akhenaten Cartucho	Nefertiti Cartucho	
	II		I	I	I	I	6
	III			I	II	I	7
	IIII	I	I	I		II	9
	I	III				I	5

Answer Sheet - Mathematics

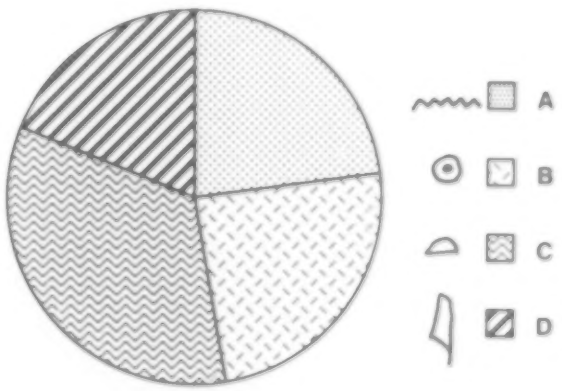
Hieroglyph Frequency Bar Graph



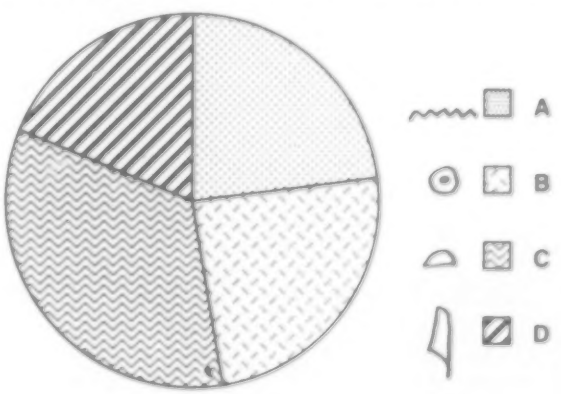
Grafica de la frecuencia de jeroglificos



Gráfica circular de la frecuencia de los jeroglíficos



Hieroglypyh Frequency Circle Graph



Numeration Systems

The following hieroglyphs were used for the ancient Egyptian numeration system.[9] The numbers 1 to 9 are represented by strokes. For example, ||| on the Coffin Lid inscription and || on Nefertiti's cartouche.

1	2	3	4	5	6	7	8	9

10 = ∩ 10,000 = 𓆐

100 = 𓍢 100,000 = 𓆑

1,000 = 𓆼 1,000,000 = 𓁨

Practice this numeration system by writing how old you are and some other important number to you.

Imagine you were living in those days. Design your own hieroglyphs to make your own numeration system. Explain your hieroglyphs and how your system works.

[9]Budge, Wallis, *The Dwellers on the Nile*, p. 190.

Instructional material prepared by the San Diego County Office of Education and the San Diego Museum of Man in connection with the exhibit, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," which opened June, 1992.

Sistema de Enumeración

Los jeroglíficos siguientes fueron usados por el antiguo sistema egipcio de enumeracion.[10] Los numeros I al 9 son representados por trazos. Por ejemplo, III en las inscripción de la tapadera de un ataúd y II en el cartucho de Nefertiti.

			II	II	III	III	IIII	III
I	II	III	II	III	III	IIII	IIII	III
1	2	3	4	5	6	7	8	9

10 =

100 =

1,000 =

10,000 =

100,000 =

1,000,000 =

Practique este sistema de enumeración por medio de escribir cuantos años tiene y cualquier otro número que le sea importante.

Imagínese que usted esta viviendo en esos días. Diseñe sus propios jeroglíficos para hacer su propio sistema de enumeración. Explique sus jeroglíficos y cómo funciona su sistema.

[10] *Ibid.*, p. 190.
El material de instrucción fue preparado por la Oficina de Educación del Condado de San Diego y el Museo del Hombre de San Diego, conjuntamente con la exhibición, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," el cual abrio en junio de 1992.

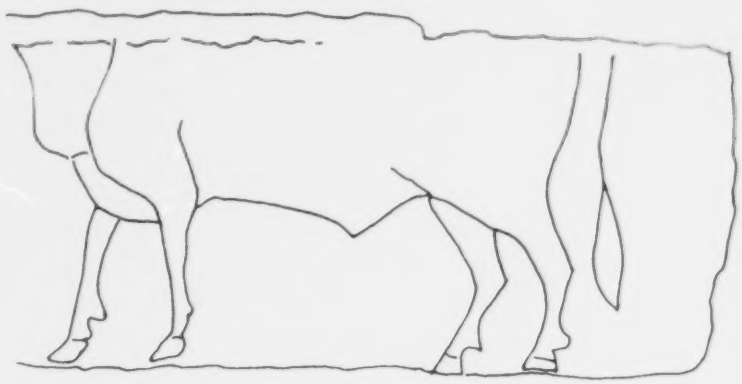
Name _____

Date _____

Mammals in Motion

Humans and cattle were depicted in Egyptian Art. Both are mammals. One of the basic functions that humans share with mammals like cattle is movement.

1. In the San Diego Museum of Man's relief of a bull, the following parts of the animal's legs can be identified: hock, knee, elbow, and split hooves. Can you locate corresponding arm and leg parts on your own body?
2. Observe the way the bull is standing and moving in the relief. Have a partner get down on the floor on his hands and kness while you direct his arm and leg positions to match the bull's position. Now, have your partner move the way the bull appears to be moving in this relief. Does this seem to be the true movement of these mammals? Why or why not?
3. What is the relationship between the movement of this mammal and a moving human being as seen in reliefs in this exhibit?



Instructional material prepared by the San Diego County Office of Education and the San Diego Museum of Man in conjunction with the exhibit, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," which opened June, 1992.

History of Mummification

It seems that the seventy-day lapse between death and burial - or death and rebirth - may have a relationship to the perceived movement of the stars. The time between the disappearance of Sothis (Sirius the Dog Star) as a result of being eclipsed by the sun and its reappearance, amounted to seventy days. When the star reappeared, a celebration of rebirth took place (Egyptian New Year) because the annual inundation of the Nile was expected to begin.[11]

In order to find out more about mummies, an International Mummy Data Bank has been formed in Manchester, England, at the Manchester Museum, a recognized center of Egyptological research. Over 500 centers world wide are known to have mummies. By the mid-1980's the data bank had information on over 233 whole human mummies.[12]

Divide your students into bookmaking groups based on data from the following pages. Have them read their section, outline the information, and make a book describing the burial practices of the region. Suggested groups for books would be: Egyptian Mummification, San Diego Burial Practices, Cremation by the Cahuilla and Luiseño Indians, and Burial Practices Around the World. Share and display the finished books to compare the similarities and differences among the various peoples of the world.

Figure 13: Ptolemaic Mummy

[11]El Mahdy, Christine. *Mummies, Myth and Magic in Ancient Egypt*. London: Thames and Hudson, p. 59.
[12]David, Rosalie, and Tapp, Eddie. *Evidence Embalmed*. Manchester: University Press, 1984, p. 157.

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Transitions That Took Place in Mummification Through the Years in Egypt

Dynasties I, II: During this time the whole body was wrapped tightly.

Old Kingdom: Only seven mummies can be definitely assigned to Old Kingdom dates. The mummy of Queen Hetepheres (mother of pyramid builder Cheops) was not found, but her grave contained the first evidence of evisceration. Four canopic jars contained her entrails. Research shows Queen Meresankh III was mummified and transported to her tomb during a 272-day period. Probably a liquid solution of natron was used so it took longer to dehydrate the body. Usually strips of bandages were soaked in an adhesive material and carefully molded to reproduce contours of the body. Change in position of the body from contracted to extended began in the Third Dynasty.[13] During the 5th and 6th Dynasties, the body was covered in a layer of plaster or resin. The features of the deceased were moulded and painted. The oldest mummy in the world is "Waty," found at Saqqara in 1966.[14]

Middle Kingdom: All mummies discovered from this time period show an advancement of the embalming techniques. Dry natron instead of natron in solution was used for faster dehydration of the body. Since rapid dehydration resulted in less deformation of the physical features, the molding of the body parts in linen was abandoned. Instead of making an incision in the abdomen to remove the internal organs, a strong solution of oleo-resin was injected into the body and left to soak several days. When it was removed, it brought with it the dissolved organs. The brain and heart were left untouched. Some mummies, however, still had entrails removed as in Old Kingdom.

New Kingdom: During the 18th Dynasty (Queen Nefertiti's and King Tut-ankhamen's time) the brain was now extracted through the nose. The abdomen was again opened to remove the internal organs and the cavity packed with linen soaked in resin to present a life-like form. At that time these were the 13 steps for mummification:

1. Remove clothing, place body on board of wood.

2. Extract brain through nostrils with a hooked wire. Do not save.

3. Make an incision in the abdomen and remove all the contents except the kidneys. Put the intestines in a chest and present them before the sun with a prayer. Cut the diaphragm and remove contents of chest cavity except the heart.

4. Wash chest cavity and abdomen with palm wine and spices. The palm wine, heavily laced with a variety of herbs and spices, served as a disinfectant, flushing away all sources of decay.[15]

[13]El Mahdy, p. 53.
[14]*Ibid.*, p. 54.
[15]*Ibid.*, p. 60.

5. Wash viscera and place in a container of natron for forty days. Sprinkle with perfume, treat with hot resin, package and place in four separate jars the lids of which represent the Four Sons of Horus: Imsety (human headed) liver; Hapi (ape headed) lungs; Dua-mutef (jackal-headed) stomach; and Qebeh-senwef (hawk headed) intestines.

6. Pack chest cavity and abdomen with anything handy (e.g., sand, straw, resin, rags, or dried vegetable fibers).

7. Place body on sloping board and cover it with heaps of dried natron. This takes about 40 days. Pure natron is composed of sodium carbonate and sodium bicarbonate.[16] Natron was known as *netjeryt* (meaning 'divine' or 'of the god').[17] The ancient Egyptians most likely got their encrusted crude natron from the shores of the Wadi Natrun and other sites, full of impurities (e.g., silicon and the salts of calcium and iron in varying amounts).

8. Remove body from natron. Remove stuffing from body. Wash body with water and palm wine. Dry the remains.

9. Place resin-soaked linen in the cranial cavity. Put sawdust, myrrh (sometimes onions) in small linen bags and stuff them into the abdominal cavity. Sew up the incision. Apply a plate of gold or beeswax over the incision.

10. Rub body with a mixture of cedar oil, cumin, wax, natron, gum, and possibly milk and wine, then dust with spices like crushed myrrh and cassia.

11. Make the face look life like. Pad the cheeks and the eye sockets with linen. Plug the nose. Close the eyelids.

12. The body was then covered with molten resin. Resins from coniferous trees native to Egypt and gum resins based on myrrh were originally gold to dark brown in color. After drying and hardening, however, they became black like the areas seen on the mummy in the San Diego Museum of Man.[18]

13. Paint on eyebrows and add jewelry. Begin to bandage by wrapping each finger, each toe, then each limb, and finally the body as a whole.

Dynasty XXI: Instead of using canopic jars, as in step 5 above, the embalmers individually wrapped the treated organs and return them to the body along with wax figures of the four sons.

Dynasty XXVI: During this time period the body was embalmed by placing packets containing the internal organs, not in the body, but between the legs of the deceased.[19]

[16]Brothwel, Don and A.T. Sandison, *Diseases in Antiquity*. Springfield: Charles C. Thomas, Publisher, 1967, p. 25.
[17]El Mahdy, Christine, *Mummies, Myth and Magic in Ancient Egypt*. London: Thames and Hudson, p. 54.
[18]*Ibid.*, p. 68.
[19]James E. Harris and Kent R. Weeks, *X-Raying the Pharaohs*. New York: Charles Scribner's Sons, 1973, n.p.

Ptolemaic Mummy at the San Diego Museum of Man

Introduction

A mummy is precious to us because it contains the remains of a human being. It is important that it be treated with respect and given the best possible care and conservation. Essentially, we are stewards who have temporary responsibility for its safekeeping. Scholars have compared a mummy to a time capsule because of all the information it brings to us from another time – another place. The techniques and materials used in mummification can tell us a great deal about another culture's technology, medical arts, and concept of the afterlife. Just as the technology changed during the time this individual lived, so will ours. Future scientists will have new techniques for analyzing this mummy – techniques that we cannot imagine. That is why it is important for us to use non-destructive techniques, such as X-rays and CT scans, so that we can pass the mummy to the next generation.

The purpose of this physical anthropology report is to determine sex, age, and individual features of a Ptolemaic mummy. The physical anthropologist relies on the X-rays and CT scans, and the clinical analysis of other specialists to synthesize the information into a general description.

Description

The mummy mask is missing, but the cartonnage covers linen wrappings. Black areas stain the cloth over the eyes, presumably from resin or bitumen used in the mummification process. The body is in an extended position with the hands placed over the pelvic region. The arms are not crossed, and the hands do not cross each other. The 4th and 5th fingers of the right hand are bent at the proximal interphalangeal joint (that is the second joint from the tip). The fingers of the left hand are also bent at this joint. The positions of both thumbs appear to be straight. The legs are straight with the knees in a "locked" position. The left foot is slightly forward of the right. Toes are slightly bent.

No cultural items such as amulets or jewelry appear in the X-rays, but there are several long staves, probably of wood, which are incorporated into the wrappings under the mummy. These extend from the ankle area to about an inch above the shoulders and lend stability to the body. It is possible that the limbs were wrapped separately.

Gender

Two avenues of evidence, cultural and biological, lead to the determination of male. The decoration on the outside of the mummy, namely the painted

cartonnage over the feet, shows red feet with gilt toe shields. Males are painted red, females yellow.[20] Characteristics of the pelvic bones, especially the pubic symphysis are male. The gonial angles (at the corner of the lower jaw) are everted or "pulled" out (the muscle attachments of the bone are well developed).

Age

Adult, based on dentition and fusion of long bone epiphyses. Of all the bones, the clavicle is the last to fuse (25-28 years). The best bones for aging are the pubic symphyses, but these are not visible in X-rays. Other clues are the worn crowns of the teeth. These are worn to a single plane in some cases, indicating that there was a lot of grit in the diet. Also, the roots of some of the teeth appear thickened (hypercementosis). This may occur when there is trauma and stress to the teeth in chewing which is common in an abrasive diet. The bone surrounding the teeth is resorbing. Based on the dentition, the individual is probably over 40 years.

Stature estimate

An estimate of 5'4" (163 cm.) is based on measurement of the individual from the top of the head to an estimated position of the heels shown in the X-ray.

Remarks

The desiccated brain has shrunk to about one-half of its size and appears in the posterior portion of the skull. X-rays taken anterior-posterior show two distinct hemispheres. Usually the brain was removed as part of the mummification process.

The density and thickness of the cortex of the long bones indicates the individual led an active life. The ends of the tibias (shin bones) show an area called a "squatting facet" where the bone's edge rides over the top of the talus (ankle bone) and presses against it when the ankles are extremely flexed as in squatting. Another indication of an habitual squatting position is in the backward slant of the tuberosity of the tibia.

Summary

The individual was probably not a rich man or a poor one. His cartonnage was nicely decorated, but there were no articles included in the wrappings. The brain was not removed and the fingers, toes, and limbs were possibly separately wrapped, indicating the mummification procedure was not the most expensive type. He was a relatively short man with well developed bones, indicating he was an active individual. Maybe his job required a lot of squatting on the heels. His teeth showed that he suffered from abrasion and probably gum disease.

[20]Kamerling, Bruce, personal communication.

Burial of the Dead in San Diego County

For this report interviews were conducted with businessmen who cared for the dead in San Diego. These included Chaplain Gary Matson at El Camino Memorial Cemetery, the newest and largest cemetery in San Diego (230 acres), and Greg Rollings, Manager of Humphrey's Mortuary in Chula Vista.

"Modern" San Diego Cemeteries
The oldest "modern" cemetery in San Diego is Mt. Hope. Greenwood Cemetery is about 100 years old.

"Old" Cemeteries in San Diego County
- Fort Rosecrans National Cemetery (before 1847)
- La Punta de Los Muertos (1872) located at south east corner of Market Street and Pacific Highway (State Highway 163)
- Old Spanish Cemetery (1850) located at the north east corner of San Diego and Old Town Avenues, Old Town, San Diego
- Site of Chapel of Santa Ysabel (1822)
- Native American burial and cremation sites

Casket Choices in San Diego Today
There are four basic options to choose from when selecting a casket today: cardboard, wood (with no metal), cloth-covered wood, and metal (bronze and copper) with gauges of 16-20 available. (The lower the number, the thicker the metal). Metal is often selected for protection from the elements. Compare the coffin lid in the exhibit with the choices offered today. Which comes the closest?

Preparing the Burial Site for a Traditional Grave
The site preparation time takes approximately one hour. The worker parks his back-hoe equipment with a big bucket and marks out the grave site on the grass. With a special tool, he cuts out the sod very precisely. This is done the day before or the morning of the funeral. The grave is dug so that the bottom of the grave is six feet from the surface. The grave bottom is level, even if it is located on a hillside. Next he sets up the greens and the lowering device for the grave-side service. The lowering device is a frame with straps going across it. It is used only if there is a cover that goes over the casket.

Mausoleum Burial
Another traditional burial technique is done above ground. The stone enclosure or concrete and marble enclosure may be four or seven rows high. Each crypt is sealed but vented for "natural returning to the elements." One may be buried alone or in tandem: two deep, head to head, or side by side.

Embalming in San Diego
Embalming is not required by state law. It is necessary, however, to embalm the remains if they are to be viewed before a funeral or if they are to be shipped to

another location for burial. An exception would be if the remains were packed in dry ice for shipment.

Disinfecting the remains and washing and bathing the deceased is done before the body is refrigerated or embalmed. If the remains are to be embalmed, the features are prepared by closing the mouth with two wires (e.g., the jaws are wired together for a natural look). The eyes are closed with a special contact lense to keep the eye lid down.

An incision is made near the collar bone on the right side of the neck into the artery. The jugular vein is also cut. Embalming fluid is injected into the artery and an electric pressure pump is used to help the blood exit by the vein. An embalming fluid of formaldehyde and other chemicals must replace blood in the veins; if blood is left in the body it will cause faster decomposition. Embalming fluid retards this. The arterial embalming chemical Metasyn is made of Aldehyde (metylene glycol, formaldehyde, methylene oxide, oxymethylene) and Alcohol (Methanol, carbinal, wood alcohol). The process takes about an hour. The cavity remains are treated next. A vacuum instrument, similar to one used in surgery, is used to remove excess blood and body fluids from the abdomen. A concentrated cavity chemical is then placed in the chest cavity (for preservation). The body is bathed again, dried, and clothed. Next the deceased is dressed in all clothing normally worn (e.g., panty hose, socks, etc.) This takes about 45 minutes. Cosmetology and hair and nails are done next. This takes about 30 minutes. Then, the remains are placed in the casket for viewing.

Cremation

Cremation is performed by placing the casket, or other container, with the deceased in it in a cremation chamber where the temperature is raised to about 1100 degrees Fahrenheit which is approximately the temperature used in firing china or bricks. All substances are burned or driven off except bone fragments since the temperature is not sufficient to consume all of the bone structure which is composed largely of the metal calcium. Upon completion, the remains are removed from the chamber. The remains removed consist of bone fragments of varying sizes. To allow these fragments to fit into containers, they are processed to a fairly uniform size.

Study the Cahuilla and Luiseño traditional burial practices of cremating the body and burning the home and possessions of a deceased member.

Cahuilla Indian Funerary Practices

Cremation was practiced by the Cahuillas immediately after death. The deceased, the house, and possessions were burned together in a large fire made with ironwood.[21] The dead person, they believed, could use all the possessions in an afterlife.[22] Seven-day ceremonies were held later to help souls of the dead get to the after life safely.[23]

In some instances images of the dead (*nukily*) were made from leaves of the fan palm and burned in the Cahuilla memorial rites.[24]

Modern Cahuilla often gather a plant with the common name of *Scarlet Bugler* for use as decoration at funerals. They called it *tuchilychungva* ("hummingbird's kiss").[25]

Luiseño Indian Funerary Practices

The mourning for a person about to die began before death. Wailing and weeping was practiced even after death. A rabbit skin blanket or matting was used to wrap the dead person with some of the most prized possessions. The corpse, unlike the Egyptian mummy in this exhibit, was placed in a curled position, knees drawn up to chest and arms [illegible]. The remains, the possessions, and outer covering were tied with bark or yucca-fiber rope. The bundle was transported to a place where the dead were cremated and placed in a prepared pit four or five feet long, three feet wide, and about two feet deep. The head was placed at the north end of the pit. The deceased and the possessions are burned on top of a two to three foot pile of grass, brush, and logs. After the fire burns out, a clan official is paid to drink a mixture of ground bone, ash, and water. One theory is that this is done to keep the good qualities of the dead person alive in the tribe.[26]

A year after a man dies, his head-tuft, a feather tuft given to him as a boy during his initiation rites, is buried. This action raises the spirit of the deceased to the stars. The rest of the deceased's belongings that had not been burned shortly after death are burned at this time to mark the end of his time on earth.[27]

[21]Bean, Lowell, and Lisa Bourgeault, *The Cahuilla*. New York: Chelsea House Publishers, 1989.p. 78.
[22]*Ibid.*, p. 78
[23]*Ibid.*, pp. 77-79.
[24]*Ibid.*, p. 147.
[25]Bean, Lowell, and Katherine Saubel, *Temalpakh*. Morongo Indian Reservation: Malki Museum Press, 1972. p. 99.
[26]Harrington, M.R., *Ancient Life Among the Southern California Indians*. Los Angeles: Southwest Museum, Number 26, 1955, pp. 27-28.
[27]*Ibid.*, pp. 27-28.

Burial Customs

Burial customs vary by cultural group, religious affiliation, and geographic region. Funerals are times for people to be bound together. Many cultural groups show great family strength at a funeral. When a parent dies, children are often the ones to bring the survivor to the funeral home to make the arrangements. This section briefly describes a few types of burial customs practiced among some religious and cultural groups in San Diego County.

Catholic
The Catholic communities include Filipinos, Mexicans, Native Americans, Anglo-Saxons, and some African Americans. Many groups also celebrate the anniversary of the death (Native Americans) or the Day of the Dead (All Saints Days) in November (Mexicans, Filipinos, Native Americans).

Native American
Every Indian reservation has two cemeteries: tribal and Catholic. A priest usually conducts the ceremony before sundown. There is an open coffin. The deceased is buried in Western clothing. The casket is usually an inexpensive pine box. Singing and dancing is carried on throughout the night, and food brought by family and friends is served. At sunrise, the dead is buried quickly, ten shovels full at a time. Following the burial, there is a potluck feast. The tribal room is lined with yards of cloth, costume jewelry, and clothing. The mourners are directed to take pieces of the decorations to make something to wear in remembrance of the deceased. The elders lead social singing with rattles. There really is no great outpouring of emotion at any time. A year later, another ceremony is held. Some more objects that belonged to the deceased are burned. Native Americans sometimes hang clocks on the grave site marking the time of death. An eight pointed mourning star (red, white, royal blue, and yellow with red diamond) is painted on a blue-green Havasu and worn by the survivors.[28]

Filipino
A 10-day rosary begins the day of death and is said every night in their homes. Filipino-Americans tend to video-tape funerals for their friends in the Philippines, and sometimes, the remains are actually shipped to the islands. They like to come to a grave site and have a picnic while the children play ball nearby. Everyone, immediate and extended family, helps with the expenses of the burial.

Mexican
After a death, at least two days are given for visitation and viewing of the deceased. This is a time for friends to be supportive to those who are left behind. Mexican-American families usually want to witness the burial and bring their children to attend the services. Very little cremation is practiced by High Catholics with a High Mass at the grave site. There is someone standing by the casket at all times, keeping visitation 24 hours a day for 3 days. There is usually a

[28]Bugbee, Richard. San Diego Museum of Man, personal communication.

vocal mourning at the grave site. Everyone lays a flower on the casket at the end of the service.

Buddhist
Laotian, Cambodian, and Vietnamese
The Monk usually schedules the time and date of the service. Sometimes, he will be responsible for the selection of the site or someone who is trained in funeral customs. The visitation to the cemetary prior to the funeral may be as much as a week. Usually, a beautiful hill side setting is selected, one that is perfectly level. They are looking for solitude. A top quality casket is chosen because death is a very important time for the family. The time of mourning is important. A special hall may be rented so that special customs may be practiced like the burning of incense. A casket might be open for viewing, and visitors might talk to the deceased as if the person is still alive.

The family is very controlled during the grieving process until they get to the burial site. At the service, there is a tremendous outpouring of grief. As the casket is lowered into the grave and covered, the mourning reaches a crescendo and subsides. The family sometimes shows a great deal of sensitivity for privacy or the "encroachment" of a burial site. One family purchased 15-16 sites and buried their mother in the center of one of the prettiest sites. After the burial, a meal of tradional foods is served.

At a Vietnamese funeral, the next of kin drapes their shoulders with white sheets and wear headbands. The clothing of the deceased and representations of money may be burned in a barrel provided by the cemetery. A barbecued pig might be served after the ceremony. The Vietnamese also have a memorial day they celebrate once a year. A big ceremony is led by the monks and food is served with soft drinks.

Japanese
Family members may dress the deceased in 4 or 5 suits or burial garments (kimonos), which will be used in the next life. They remove all buttons and open all pockets, believing these could hold evil spirits. Families bring food and money to set next to the deceased, also for use in the next life. They might bring a small paper house and burn it so the deceased would have a house in the next life. A penny and some rice are placed in the mouth. Every person at the funeral gets a gift, like money, for attending the services. They love flowers and may have over a thousand dollars worth of flowers at the grave site. Some Japanese families may choose cremation. The memorial service may not be for a few weeks until after the urn for the ashes is prepared. It may be held on a special holiday.

African-Americans Protestants (Baptists)
Services within this group are very uplifting and often held in a church. There is much praising and rejoicing about the trip to heaven and hope. Eulogies are given at the church. There is a lot of grieving at the grave site and people usually stay to see the burial completed.

Jews and Moslems
Jews and Moslems request no embalming and ask for burial within 24 hours if at all possible. They have "washers" who are trained to come and wash the body. They use regular water, and then, wrap the body in a shroud or regular clothing, depending on the religious sect. The burial is not elaborate. Death is an equalizer, they believe, a time when we are all alike. The casket is plain as is the grave-side service. There is not a lot of grieving. For the Jews, a part of the ceremony includes giving every person present an opportunity to shovel some dirt onto the casket after it is lowered. Sands from Israel may be placed in a casket. The official end of the mourning period is 11-12 months after death when the headstone is officially unveiled. A Rabbi conducts the service.

Mormons
Deceased Mormons wear white burial garments. The men wear a white suit, white ties, and white hat, and sometimes a green sash with fig leaves. The women are dressed in a white dress and veil if they have been married in the temple. The Relief Society do the dressing when it comes to the undergarments. The service is held at the temple or the church.

Jehovah Witnesses and Christian Scientists
For these groups, cremation is usually preferred. There is no viewing of the deceased. The services are conducted at the hall, or another place of worship.

Anglo Saxon Protestants
Customs for Anglo Saxon Protestants are unique to each geographic region. Geographical distances between families may change funerary traditions for a community. In southern California, traditions are very relaxed, and are not as formal as in the midwest. Often times the people do not to talk about death, bring children to funerals, or view the deceased. Many people prefer cremation with a memorial service at a later time. Family members and friends are usually invited over to the survivors' home for food and comfort.

Mortuary Schools for Career Goals
The closest Mortuary School is located in the Health Science Department of Cypress College, S 9200 Valley View, Cypress, CA, 90630, (714) 826-2220.

El entierro de los muertos en el condado de San Diego

Para este reporte, se le dirigieron entrevistas a hombres de negocios que atienden a los muertos en San Diego. Estos incluyen el sacerdote Gary Matson del Cementerio de El Camino, el cementerio más nuevo y más grande de San Diego (230 acres), y Greg Rollings, Gerente de la Morgue en Chula Vista.

Cementerios "modernos" de San Diego
El cementerio "moderno" más antiguo de San Diego es Mt. Hope. El cementerio Greenwood tiene aproximadamente 100 años.

Cementerios "antiguos" en el condado de San Diego
- "Fort Rosecrans National Cementary" (antes de l847)
- La Punta de Los Muertos (l872), localizado en la esquina sureste de Market Street y Pacific Highway (State Highway 163)
- El "Old Spanish Cementary" (l850), localizado en la esquina noroeste de "Old Town Avenues" en Old Town, San Diego.
- En la sede de "Chapel of Santa Ysabel" (l822).
- Sitios de sepulcros y incineración de los nativos americanos.

Selección actual de ataúdes en San Diego
Actualmente, existen cuatro opciones básicas cuando uno selecciona un ataúd: De cartulina, madera (sin metal), madera cubierta de tela, y metal (bronce y cobre) con gubia disponibles de 16-20 (Entre más bajo el número, más grueso el metal). Frecuentemente, el metal es seleccionado para protección de los elementos. Compare la tapadera del ataúd en la exhibición con la selección disponible hoy. ¿Cuál se asimila más?

Embalsamamiento en San Diego
La ley estatal no requiere el embalsamamiento. Sin embargo, si es necesario embalsar cuando los restos van a ser expuestos en un funeral o si tienen que ser enviados a otro sitio para el sepulcro. Una excepción sería si los restos fueran empacados en hielo seco para ser enviados.

Desinfectando los restos y limpiar y bañar a los difuntos, se hace antes que el cuerpo sea refrigerado o embalsamado. Si los restos van a ser embalsamados, el rostro es preparados por medio de cerrarles la boca con dos alambres (se les cierra la boca con alambre para dar una apariencia natural). Se les cierra los ojos con un lente especial para mantener el párpado cerrado.

Se les hace una cortadura en la clavícula en la arteria del lado derecho de la nuca. También se corta la yugular. Se inyecta en la arteria un fluido de embalsamamiento y una bomba de presión se utiliza para ayudar que la sangre salga de dicha vena. Un fluido de embalsamamiento de formaldehído y otros químicos debe reemplazar la sangre en las venas; si sangre se deja en el cuerpo, esto causara una descomposición más acelerada. El fluido de embalsamamiento retrasa este proceso. El químico de embalsamamiento es Metasino, que es hecho

de Aldehído (glicol metileno, formaldehído, metalino óxido) y Alcohol (metanol, carbinol, alcohol de madera). El proceso tarda aproximadamente una hora. Después, los restos de la cavidad son tratados. Un instrumento cómo aspiradora, similar al que se usa en cirugía, es usado para remover el exceso de sangre y fluidos del cuerpo del abdomen. Un químico concentrado de cavidad es colocado en la cavidad del tórax (para preservación). El cuerpo es bañado de nuevo, secado y vestido. Después, el muerto es vestido con toda la ropa que normalmente usaba (ej. medias, calcetas, etc.) Esto demora como 45 minutos. Después, la cosmetología y las uñas. En seguida, los restos son colocados en un ataúd para ser vistos.

Incineración

La incineración se lleva acabo por medio de colocar al muerto en un ataúd, o otro recipiente similar, y meterlo dentro de un cuarto de incineración donde la temperatura es subida a 1100 grados Fahrenheit, que es la temperatura aproximada utilizada en cocer china o ladrillos. Todas las substancias son quemadas excepto fragmentos de hueso, ya que la temperatura no es suficiente para consumir toda la estructura de hueso que es compuesta en su mayor parte por calcio metálico. Los restos son removidos de la cámara cuando el proceso haya concluido. Los restos extraídos consisten de fragmentos de huesos de diferentes tamaños. Para permitir que estos fragmentos quepan en recipientes, son procesados a un tamaño más o menos uniforme.

Estudie las prácticas tradicionales de sepultura de los Cahuilla y Luiseño de la incineración del cuerpo, el quemar del hogar y posesiones del muerto.

Prácticas Mortuorias de los Indios Cahuilla
Los Cahuillas practicaban la incineración inmediatamente después de la muerte. El difunto, su hogar y las posesiones se quemaban juntos en un fuego grande hecho de palo de hierro.[29] Ellos creían que la persona muerta podía usar todas estas posesiones en la vida futura.[30] Más tarde, ceremonias de siete días se celebraban para ayudar las almas de los muertos llegar a la vida futura con seguridad.[31]

En algunas circunstancias, imágenes de los muertos (*nukily*) era hechas de hojas de palma y se quemaban en los sitios conmemorativos de los Cahuilla.[32]

Los Cahuilla modernos con frecuencia traen una planta con el nombre común de "Scarlet Bugler" para decoración en los funerales. Lo llaman *tuchilychungva* ("beso del colibrí").[33]

[29]Bean, 1989, p. 78.
[30]*Ibid.*, p. 78.
[31]*Ibid.*, pp. 77-79.
[32]*Ibid.*, pg. 147.
[33]Bean, 1972, p. 99.

Prácticas Mortuorias de los Indios Luiseño

El duelo por una persona comenzaba antes de la muerte. El lamentar y el llorar hasta se practicaba después de la muerte. Una frazada o manta de piel de conejo era utilizada para cubrir a la persona muerta con algunas posesiones más queridas. El cadáver, al contrario de las momias egipcios en esta exhibición, se le colocaba en una posición encogida, las rodillas subidas al pecho y los brazos cruzados. Los restos, las posesiones y la cobertura de afuera era amarrada con corteza o lazo de fibra de yuca. El envoltorio era transportado a un lugar donde los muertos eran incinerados y colocados en un hoyo preparado de cuatro o cinco pies de largo, tres pies de ancho y 2 pies de hondo. La cabeza era colocada en la parte norte del hoyo. El muerto y sus posesiones eran quemados encima de dos o tres pies de grama, matorral y troncos. Después de que se apagará el fuego, se le paga al oficial del clan para que tome una agua hecha de hueso molido y ceniza. Una de la teorías es que esto se hace para mantener vivas las buenas cualidades de la persona muerta en el tribu.[34]

Un año después de que un hombre muere, su tocado, un tocado hecho de una pluma que se le dio cuando era niño durante sus ritos de iniciación, es enterrado. Esta acción levanta el espíritu del muerto hacia las estrellas. El resto de las posesiones del muerto, que no fueron quemados después de la muerte, son quemados en este tiempo para marcar el fin de su vida en la tierra.[35]

[34]Harrington, pps. 27-28.
[35]*loc. cit.*

Costumbres de entierro

Los funerales son un tiempo donde se une la gente. En los funerales, muchos grupos culturales demuestran una fuerza familiar muy grande. Cuando se muere la mamá o papá, los hijos no los vecinos, son los que deben traer al viudo(a) a la funeraria para hacer los preparativos.

Católico

Las comunidades inmigrantes católicas incluye los filipinos y los mexicanos. Otros participantes fuertes de las costumbres católicas son los nativos americanos y blancos, quienes son miembros de la religión. Ellos celebras el Día de los Muertos en noviembre. Los nativos americanos hasta cuelgan relojes en la tumba para marcar la hora de la muerte. Algunos cementerios tienen disponible un sacerdote para el Día de los Muertos y sirven refrigerios.

Americanos Nativos

Toda reservación de indios tiene dos cementerios: uno del tribu y otro católico. Usualmente, un sacerdote celebra la ceremonia antes de que caiga el sol. El ataúd esta abierto. El muerto es enterrado en ropa occidental que uno podría encontrar en cualquier ciudad. Generalmente, el ataúd es una caja barata de pino. Se canta y se baila durante toda la noche. Al amanecer, se entierra al muerto rápidamente. Después del entierro hay un banquete "pot luck". El salón del tribu esta lleno de yardas de tela y joyas de fantasía y ropa. Las personas que guardan luto se les dice que traigan piezas decorativas para hacer alguna vestimenta en honor al muerto. La gente mayor dirigen un canto social con chinchines. Realmente en ningún tiempo hay una demostración de sentimiento grande. Un año después se celebra otra ceremonia. Se queman algunos objetos más y propiedades del difunto. Una estrella con ocho puntas (roja, blanco, azul real, y amarillo con diamantes rojos) se pinta sobre un color. Havas azul-verde, y lo usan los sobrevivientes. Una moña es azul oscura, roja y blanca.[25]

Filipinos

Un rosario de diez días comienza el día de la muerte, y también se dice que cada noche en sus casas. Tienden a tomar video del funeral para sus amigos en las Filipinas, y a veces los restos son enviados a las islas. Les gusto ir al sitio de la tumba y tener un picnic mientras los niños juegan fútbol cerca. Todos ayudan con los gastos. Todos sienten que también es responsabilidad de ellos ayudar enterrar a sus familiares lejanos, hasta tías y tíos.

Mexicanos

Generalmente, la población hispana hace preparativos muy tradicionales. Es muy importante tener una ceremonia muy fina. Por lo menos dos días son apartados para visitas y para ver al muerto. Este es un tiempo de ofrecerle apoyo a aquellos que sobrevivieron al difunto. Usualmente, hay un pésame vocal en el sitio del entierro. Las familias mexicanas-americanas usualmente quieren ser

testigos del entierro. Muy poca incineración es practicada por la Iglesia Católica. Siempre hay alguien parado cerca del ataúd. Les gustaría poder velar al muerto las 24 horas de 3 días. Al final de la ceremonia, todos dejan una flor encima del ataúd. Muchos niños asisten la ceremonia. Todos se ponen algo negro, hasta los niños.

Budista
Laos, Cambodia, Vietnam
El Monje es quien usualmente programa la hora y fecha del servicio. A veces él o alguien quien esta entrenado en las costumbres mortuorias, selecciona el sitio de entierro. Las visitas antes del funeral pueden durar hasta una semana. Con frecuencia escogen un sitio bello en el flanco de una colina. Es muy importante que la tierra este perfectamente nivelada. Ellos están en búsqueda de la soledad. Un ataúd de primera calidad es seleccionado, ya que para la familia la muerte es un tiempo muy importante.

El tiempo de luto es importante. Un salón especial puede ser alquilado para que las costumbres especiales se practiquen, como el quemar incienso. Un ataúd puede estar abierto para ser visto. Puede haber muchas flores. Pueden hablarle al muerto como si todavía estuviera vivo.

En el servicio hay un demostración de emoción tremenda. La demostración de sentimiento puede ser mental y emocionalmente muy saludable para el sobreviviente. La familia a veces demuestra una gran sensibilidad acerca de la privacidad o la "intromisión" del sitio de entierro. Una familia adquirió 15-16 sitios y enterraron a su mamá en medio del más bonito. La familia estaba muy controlada durante todo el proceso de pésame, hasta que llegaron al sitio de entierro. Una vez que todos estaban presentes, hubo una efusión de lamento tan tremenda, que se temía que alguien se iba a lesionar cayéndose dentro de la tumba. Mientras el ataúd fue bajado dentro de la tumba y cubierto, el lamento alcanzo un crescendo y después descendió. En seguida, se sirvió comida étnica en el sitio.

En un funeral vietnamés, los parientes pueden taparse los hombros con sábanas blancas y usar cintas en la frente. Pueden quemar algunas cosas. La ropa del difunto y representaciones de dinero pueden ser quemados en un barril proporcionado por el cementerio. Un cerdo en barbacoa puede servirse después de la ceremonia. Los vietnamés también tienen un día conmemorativo que celebran una vez al año. Una gran ceremonia es dirigida por los monjes y se sirve comida y aguas gaseosas.

Japonés
Ellos creen en removerse todos los botones y abrir todas sus bolsas. Pueden vestir al difunto en 4 o 5 trajes o vestidura mortuoria (kimono). Los múltiples trajes serán usados en la próxima vida. Los botones y las bolsas son removidas o ajustadas porque pueden almacenar espíritus malignos. Las familias traen comida y dinero para colocar a lado del difunto para su uso en la próxima vida.

Una familia trajo una casa de papel pequeña para que el difunto tenga casa en la próxima vida. Un centavo y arroz se le coloca en la boca. Se les da un regalo, cómo dinero, a todas las personas que asistieron los servicios. Este grupo de inmigrantes pueden escoger la incineración. Las flores les gustan mucho y pueden tener en el sitio de entierro miles de dólares en flores. El entierro podrá demorar unas semanas hasta que se termine la incineración y preparen la urna. El entierro podrá celebrarse el día de un feriado especial.

Africano-Americanos Protestantes (Baptists)
Los servicios dentro de este grupo son muy exaltantes moralmente y con frecuencia se celebran en una iglesia. El viaje al cielo y la esperanza, se alaba y se regocija mucho. En el sitio del entierro se lamento mucho y la gente usualmente se quedan hasta que se termina el entierro.

Los Judíos y los Musulmanes
Estos dos grupos no requieren embalsamamiento y si es posible piden el entierro dentro de 24 horas. Los musulmanes y los judíos tiene "lavadores" quienes están entrenados para lavar el cuerpo. Ellos usan agua normal y envuelven el cuerpo en una mortaja en vez de vestidura regular. El entierro no es elaborado. Ellos creen que la muerte es un igualador, un tiempo donde todos somos iguales. Al igual que los servicios en el sitio del entierro, el ataúd es simple. Los judíos no se lamentan. Para los judíos, parte de la ceremonia incluye darle a toda persona presente una oportunidad de echar tierra al ataúd con la pala, una vez que es bajada. Arena de la tierra santa puede ser colocada en un ataúd que no tenga metal. El final oficial de período de pésame es 11-12 meses después de la muerte cuando se descubre la piedra sepulcral. Un rabino dirige el servicio.

Mormones
Los mormones tienen vestiduras mortuorias blancas. Los hombres usan un traje blanco, una corbata blanca y un sombrero blanco. También usan una faja verde con hojas de higo. Las mujeres se visten en un vestido y velo blanco, si fueron casadas en el templo. Los Santos de los últimos Días visten a sus gente (La Sociedad Auxilio) cuando se trata de ropa interior. Los servicios se celebran en el templo o la iglesia, y el entierro es tradicional.

Testigos de Jehová y Cristiano Científico
Usualmente se prefiere la incineración directa. No se pone a la vista el muerto. Los servicios se dirigenen el salón, outro lugar de adoración.

Anglosajones Protestantes

Las costumbres de los Anglosajones Protestantes son únicas para cada región geográfica. Las distancias geográficas entre familias podrán cambiar las tradiciones funerarias dentro de una comunidad. En California del Sur, las tradiciones son muy flexibles. y no son tan formales como en el oestemedio. Muchas veces la gente no habla de la muerto, no traen a los niños a funerales, ni ponen a la vista sus difuntos. Mucha gente prefiere la incineración con un servicio conmomerativo en una fecha posterior. Por general, los miembros familiares y amistades son invitados a la casa de lossobrevivientes para comer y para dar y recibir consuelo.

Escuelas Mortuorias para Metas Vocacionales

La escuela mortuoria esta localizada en el Departamento de Ciencia de la Salud en Cypress College, S 9200 Valley View, Cypress, CA 90630, (714) 826-2220.

X-ray, Historical, and Aesthetic Examination Reports Concerning the Ptolemaic Mummy in the San Diego Museum of Man

Introduction

The following information and activities are to be used in conjunction with the San Diego Museum of Man exhibit as a simulated examination of the Ptolemaic Mummy, on loan from the Los Angeles Museum of Natural History. Students will act as specialists examining the mummy and drawing inferences regarding the life and times of this Egyptian.

Divide the class into five specialist groups: Orthopaedic Surgeons, Radiologists, Art Historians, Historians, and Physical Anthropologists. Distribute one copy of the specialist report to each group (cooperative group work) to read together, discuss, and make inferences about what the information tells them about the lifestyle of this Egyptian.

Next, distribute the corresponding questions to each student in the group (individual assessment) to be discussed and recorded. Students will be called on to report their findings.

After all five groups have completed their examinations and recorded their findings, share the results as a class by filling in the given overhead chart, Conclusion of Specialist's Findings.

When finished, choose a follow-up activity to conclude the lesson like writing a report to include something from each of the specialist findings.

Figure 14: *X-ray, Ptolemaic Mummy* (front view)

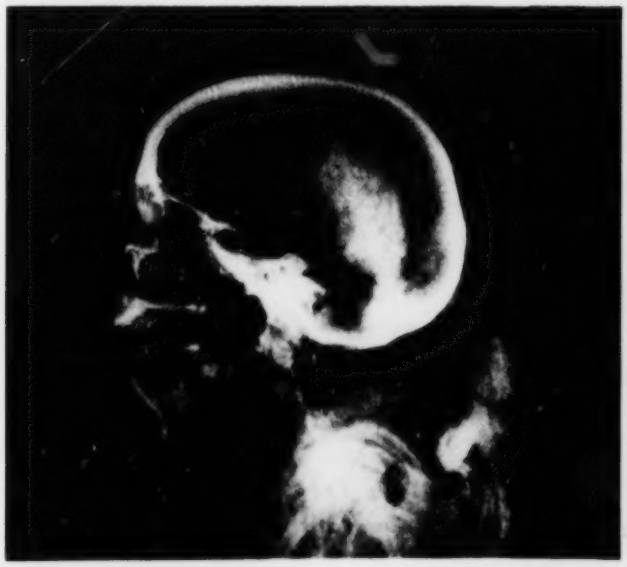

Figure 15: *X-ray, Ptolemaic Mummy* (profile)

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The Art Historian's Report:

1. This mummy dates to the Ptolemaic Period (332-30 B.C.) and is decorated with a series of painted panels.
2. The paintings are done with green, blue, white, red, and black paint that has no shine or luster. The blue paint is thick and grainy looking. Gold leaf is used, too.
3. The backing to the paintings is fabric.
4. Most of the paint is applied very carefully with narrow black outlines on a white background.
5. One of the four panels is a painting of an interior scene with five human figures including the mummy and one figure which is half human and half jackal (Anubis).
6. More abstract patterns appear in these paintings than figures. These include feathers, rectangles of alternating colors, petals, ropes, dots, circles, and blossoms.
7. Some of the figures represent deities worshipped by ancient Egyptians. There are no hieroglyhs.
8. The painted designs have two functions: 1) representation of things in the "real world" like the feet and collar paintings and, 2) paintings to guarantee the deceased an afterlife. These paintings are of the winged scarab and deities are like amulets.
9. Some sections of the paintings are in better condition than others and do not require restoration.
10. No hieroglyphs are visible on this mummy.

The Historian's Report:

1. This mummy dates to the Ptolemaic Period (332-30 B.C.) and is decorated with a series of painted panels.
2. The painted designs have two functions: 1) representation of things in the real world, and 2) paintings to guarantee the deceased an afterlife.
3. At the top is a broad collar with clasps in the shape of the hawk-headed sun god, Horus.
4. The painted panel over the abdomen protects the mummy with the image of a winged scarab pushing a gilded sun disk. The deceased is represented as a mummy resting on the scarab's left wing.
5. Next is another protective symbol, the winged Isis, wife of Osiris, god of the dead.
6. There is a scene in which Anubis, the jackal-headed god of cemeteries and embalming, prepares the mummy.
7. The figures at the bottom may represent the four sons of Horus, but they are not shown in their traditional form.
8. The wrapping on the feet of the mummy is painted red (male mummy) and the toes are decorated to look like they have gold shields on them.

Orthopaedic Surgeon's Report:

1. This mummified man was born with a slipped vertebra (spondylolisthesis of the 5th lumbar vertebra, i.e., below the belt level) which causes back pain. This condition occurs in 1% of the present population. Additionally, it can run in families.
2. The man may have had osteomyelitis in his right arm (humerus) or an old bone scar. Or, it is possible that overlying artifacts or packing may be affecting the look of the arm (humerus) on the X-ray.
3. The arthritis manifested by the spurs of the spine, low back, jaw joints, and neck suggest this mummy was between 50 and 60 years of age at death.
4. There did not appear to be any arthritis in the knee joints.
5. An outward bow in the legs suggests the man might have had rickets as a child. Rickets occurs as a result of not having enough Vitamin D.
6. The teeth at the front of the mummy were all squared off, but they were straight. Reportedly, the squared off teeth were due to abrasive sand in the food, perhaps residual of food grinding implements.
7. A molar on the left side of the jaw and two upper central incisors are missing.
8. An impacted wisdom tooth appeared in the left jaw.
9. When looking at the X-ray of the skull from behind one can see that the mummy had a deviated septum in the nose.
10. The base of the skull appeared to be pushed or mashed into the cranium more so than it would be in a living person.
11. There appeared to be enough arthritis in the jaw joints and in the neck to suggest the mummy was about 50 years old when he died.
12. The man's right arm, right clavical, and shoulder blade were smaller than the left, probably as a result of less use (from painful osteomyelitis, or perhaps from polio).
13. The mummy had thick cortex (thickened bone surface) on the femurs, or upper leg bones, showing that he was strong.
14. The second rib on the left side was broken. It was broken either shortly before he died (two weeks before death), or after death as a result of rough handling of the mummy. Surgeons know this because no healing was present.

Physical Anthropologist's Report:

1. The mummy is wrapped in linen lying in a straight and extended position. The hands are placed over the pelvic region, but are not crossed. The limbs were not wrapped separately (e. g., each arm, finger, etc.).
2. There are black stains on the cloth over both eyes, presumably from resin or bitumen used in the mummification process. The mummy mask is missing.
3. No amulets or jewelry appear in the X-rays, but there are long wooden staves from the ankle to the shoulder incorporated into the wrappings under the mummy to lend stability to the body.
4. Characteristics of the pelvic bones and the red feet with gilt toe shields painted on the outside of the mummy are evidence that the mummy is male (females' feet are painted yellow).
5. The mummy is an adult based on the complete fusion of the long bones. The tooth wear and lower vertebral lipping (small bony spurs) give evidence of the age at death which is estimated to be 40 - 55 years.
6. The teeth were worn flat in some cases indicating there was a lot of grit in the diet. The roots of many teeth appear thickened which occurs when there is trauma and stress to the teeth while chewing.
7. The stature of the individual was approximately 5 feet 4 inches tall.
8. The brain was not removed during the mummification process and has shrunk to about one-half of its regular size. Two distinct hemispheres can be seen in the X-ray.
9. Thick long bones indicate the individual led an active life. Ridges and the slant of the upper part of the shin bones indicate an habitual squatting position.

The Radiologist's Report on the Computerized Tomography Scanning (CT Scan):

1. Although shrunken to about one-half size, the entire brain seems to be present, with surrounding membranes. There is no evidence of a large opening in the sinuses through which the brain could have been removed.
2. The two upper central incisor teeth are missing.
3. The nasal septum is mildly deviated.
4. The spinal dural membranes appear to be intact.
5. Some cartilage can be seen in the larynx.
6. Fractures on the left side of a thoracic vertebra and a second rib are noted with no evidence of healing. These fractures either happened at the time of death, since no evident healing had occurred, or, more likely, were related to movement of the specimen since mummification.
7. Some heart and lung tissue is visible.
8. The abdominal cavities appear empty, so that the usual practice of replacing desiccated organs is not evident.
9. There is a fracture on the back part of the spine at the fifth lumbar, and a slipped vertebra.
10. There is some hardening from bone fusion at the point where the hip joins the sacrum.
11. Several spinal nerves can be seen, and possibly the paraspinal sympathetic nerve chain.
12. There is questionable visualization of the inguinal canal bilaterally, and of desiccated tissue which may represent a portion of the scrotum. Otherwise, the genitals can not be seen very well. Here there is clumping of the wrapping material, and the nearby bony and soft tissue structures of the hand and wrist.
13. Neurovascular structures are noted throughout the lets, as well as what appears to be a membrane between the tibia and fibula which could represent the interosseous membrane. The structures can be separated into anterior and posterior tibial vascular branches with associate neural structures.
14. Four "rods," which could be wooden dowels, are noted along the back of the mummy throughout its length, presumably placed there for support.

Informe del historiador de arte:

1. Esta momia data del Período ptolemaico (332-30 B.C.) y esta decorada con una serie de paneles dibujados.

2. Las pinturas son hechas con pintura verde, azul, blanco, rojo y negra que no tiene brillo ni lustre. La pintura azul es gruesa y granosa. También se utiliza una hoja dorada.

3. La parte de atrás de la pintura es de fábrica.

4. La mayoría de la pintura esta aplicada cuidadosamente con un marco negro encima de un fondo blanco.

5. Uno de los cuatro paneles es una pintura de una escena interior con cinco figuras humanas, incluyendo la momia y una figura que es medio humana y medio chacal (Anubis).

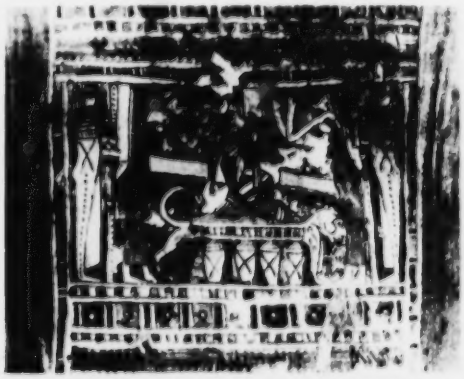
6. En las pinturas aparecen más figuras abstractas que figuras. Estas incluyen plumas, rectangulares de colores alternos, pétalos, lazos, puntos, círculos y retoños.

7. Algunas secciones de la pintura están en mejor condición que otras y estas no necesitan restauración.

8. Los diseños pintados tienen dos funciones: 1) representación de cosas en el "mundo real", como las pinturas de pies y collares y, 2) pinturas que le garantizaban a los difuntos la vida futura. Estas pinturas son de escarabajos con alas y las deidades son como amuletos.

9. No se encontraron jeroglíficos en esta momia.

10. No aparecen jeroglíficos en esta momia.



Fotografía 16: *La pintura de momia*

El informe de un historiador:

1. Esta momia data del período ptolemaico (332-30 B.C.) y esta decorada con una serie de paneles dibujados.

2. Los dibujos pintados tienen dos funciones: 1) representaciones de cosas en el mundo "real" y 2) dibujos para asegurar la vida futura a los muertos.

3. Encima tiene un collar ancho con broches con la figura de Horus, el dios del sol con cabeza de halcón.

4. Abajo de este collar esta un escarabajo con un disco dorado de forma de un sol que protege a la momia, la cual aparece descansando en la ala izquierda.

5. Junto a esto, esta otro símbolo protector, Isis con alas, la esposa de Osiris, dios de los muertos.

6. Le siguen una escena en donde Anubis, el dios de los cementerios y de embalsamamiento que tiene cabeza de chacal, prepara la momia.

7. Las figuras abajo pueden representar los cuatro hijos de Horus, pero no están representados en su forma tradicional.

8. Las coberturas de los pies de la momia están pintados de rojo (momia masculina) y los dedos están decorados para aparentar que tuvieran encima protectores dorados.

El material de instruccion fue preparado por la Oficina de Educacion del condado de San Diego y el Museo del Hombre de San Diego, conjuntamente con la exhibicion, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," el cual abrio en junio de 1992.

Informe del cirujano ortopédico:

1. Este hombre momificado nació con una vértebra luxada. Esta condición le ocurre al 1% de la población actual. Además, esta condición puede ser hereditaria.
2. El hombre podría haber tenido osteomielitis en su brazo derecho o en una vieja cicatriz del hueso. También puede ser posible que los artefactos que descansaron encima de la momia o en el proceso de empaque, afectó cómo se mira la radiografía del brazo.
3. La artritis en la punta del espinazo y la espalda inferior sugiere que esta momia tenía entre 55 y 60 año cuando murió.
4. No aparenta tener artritis en las articulaciones de la rodilla.
5. Las piernas arqueadas del hombre demuestra que tal vez tuvo raquitis de pequeño. La raquitis resulta de no consumir suficiente vitamina D.
6. Los dientes de enfrente estaban todos cuadrados, pero rectos. Supuestamente, los dientes cuadrados era consecuencia de que la comida tenía arena raspante.
7. Le falta un molar en el lado izquierdo de su mandíbula.
8. Un cordal impactado apareció en la mandíbula izquierda.
9. Uno puede apreciar que la momia tuvo una septum desviado en la nariz, cuando se mira la radiografía de la parte de atrás del cráneo.
10. La base del cráneo aparentó estar empujada o machucada dentro del cráneo, más de lo que hubiera estado en vida.
11. Se encontró suficiente artritis en las articulaciones de la mandíbula y la nuca para sugerir que la momia tenía 50 años cuando murió.
12. El brazo derecho y clavícula del hombre eran más pequeñas que el lado izquierdo como resultado de menos uso (del osteomititis doloroso, o tal vez por polio).
13. La momia tenía fémures (huesos superiores de la pierna) muy gruesos, que demuestra que era muy fuerte.
14. La segunda costilla en el lado izquierdo estaba rota. Ya sea, se la rompió poco antes de que murió (dos semanas antes), o después de la muerte como consecuencia de manoseo descuidado. Los radiólogos saben esto porque no habían señales de que estaba sanando.

El material de instruccion fue preparado por la Oficina de Educacion del condado de San Diego y el Museo del Hombre de San Diego, conjuntamente con la exhibicion, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," el cual abrio en junio de 1992.

Informe del antropólogo físico:

1. La momia esta cubierta en lino en una posición recta y extendida. Las manos están sobre el área del pélvico, pero no estan cruzadas. Las extremidades no estan envueltas individualmente (ejemplo; cada brazo, pierna, etc.).
2. Los retazos de tela encima de los ojos de la momia estan manchados de negro, supuestamente de residuos o bitumen. Le falta la máscara a la momia.
3. No aparecieron amuletos o joyas en la radiografía, pero habían unas estacas desde los tobillos hasta los hombros, incorporadas a las coberturas debajo de la momia para que le diera estabilidad al cuerpo.
4. Las características del hueso pélvico y los pies rojos con uñas pintadas de dorado, es evidencia que la momia es masculina (los pies de las momias femeninas están pintados de amarillo).
5. La momia aparenta ser un adulto entre las edades de 40 años - 55 años, basados en la fusión completa de los huesos largos, y las coronas en los dientes.
6. Los dientes estan totalmente desgastados, lo que demuestra que habian muchos granos de arena en la comida. Las raíces de los dientes se miran gruesos, lo cual ocurre cuando existe trauma y opresión a los dientes mientras masticaba.
7. La momia mide aproximadamente 5 pies 4 pulgadas.
8. El cerebro no fue removido durante el proceso de momificación y se a encogido a un-cuarto de su tamaño regular. Dos hemisferios distintos se pueden ver en la radiografía.
9. El grueso de los huesos indican que el individuo tenía una vida activa. La posición de los huesos de la espinilla indica una posición habitual de acuclillarse.

El material de instruccion fue preparado por la Oficina de Educacion del condado de San Diego y el Museo del Hombre de San Diego, conjuntamente con la exhibicion, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," el cual abrio en junio de 1992

El informe del radiólogo de la Tomografía Exploratoria Computarizada (CT scan):

1. A pesar de que el cerebro esta encogida hasta la mitad de su tamaño, parece que el cerebro entero esta presente con sus membranas alrededor. Una cosa concomitante con este hallazgo, es que no existe evidencia de un apertura grande en los senos, por donde el cerebro pudo haber sido extraído.
2. Le faltan los dos dientes incisivos superiores centrales.
3. El septum nasal esta un poco desviado.
4. Las membranas durales de la espinal aparecen estar intactas.
5. Se miran residuos en el cartílago del laringe.
6. Se noto fracturas en una de las vértebras torácicas superiores en el costado izquierdo y en la segunda costilla a la izquierda, y no había evidencia de que sanaban. En la radiología simple que realizamos anteriormente también habíamos identificado una fractura de la primera costilla. Estas fracturas, ya sea ocurrieron a la hora de la muerte, ya que no hay evidencia de que sanaba, o la relacionamos con el movimiento del espécimen momificado, lo cual es más probable.
7. Membranas pleuropericardinales están visibles en el tórax, y se identifico posibles residuos de tejidos cardíacos.
8. La cavidad abdominal aparecen vacías, o sea que la costumbre de desecar los órganos no se presento.
9. Existe espondilosis a nivel del quinto lumbar, y posiblemente espondilotitis.
10. Se noto un poco de escleroris osteoartrítica en el aspecto inferior de la articulación sacroilíaca derecha.
11. Varios nervios espinales son visualizados, y posiblemente una cadena nerviosa del paraespinal simpático.
12. Existe una visualización cuestionable del canal bilateral inguinal, y del tejido desecado que puede representar parte del escroto. De otra manera, los genitales no fueron vistos. En esa región había cómo un puño hecho de los materiales de cobertura, y la estructura de huesos y de tejidos suaves de la mano y de la muñeca.
13. Se noto estructura neurovascular a lo largo del "lets", así como lo que aparente ser una membrana entre la tibia y fíbula que puede representar la membrana interósea. La estructura puede ser separada en miembros vasculares del tibia superior y inferior con estructuras neurales asociadas.
14. Se notaron cuatro "varillas", que pueden ser clavijas de madera, a lo largo del aspecto trasero de la momia, supuestamente colocada allí para dar apoyo.

El material de instrucción fue preparado por la Oficina de Educación del condado de San Diego y el Museo del Hombre de San Diego, conjuntamente con la exhibicion, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," el cual abrio en junio de 1992.

Questions for Art Historians:

1. Why were these colors selected?_____

_____

_____

2. What do you think they used to apply the paint?_____

_____

_____

3. Why did the artist use more patterns than figures?_____

_____

_____

4. Which patterns depict items from daily Egyptian life?_____

_____

_____

5. Why are some sections in better condition?_____

_____

_____

6. Why weren't there any hieroglyphs?_____

_____

_____

7. What do you think is the social class of this Egyptian? Why?_____

_____

_____

Instructional material prepared by the San Diego County Office of Education and the San Diego Museum of Man in conjunction with the exhibit, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," which opened June, 1992.

Questions for Historians:

1. List decorations depicting the "real" world and decorations for the afterlife:

Real World	Afterlife

2. Why were these gods selected?_____

_____

_____

3. How do you know the sex of this mummy?_____

_____

_____

4. Are there pictures depicting the life of this Egyptian? Why or why not?_____

_____

_____

5. Based on your findings, what do you think was the social position of this Egyptian citizen?_____

_____

Why?_____

Instructional material prepared by the San Diego County Office of Education and the San Diego Museum of Man in conjunction with the exhibit, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," which opened June, 1992.

Questions for Orthopaedic Surgeons:

1. Since they had no pain pills in those days, such as aspirin, Tylenol, or codeine, how do you reason that the back pain was tolerated?_____

_____

_____

2. How do you account for missing teeth?_____

_____

_____ _____

3. List all diseases and physical conditions found in this male mummy along with their effects:

Disease Effects

_____

_____

_____

4. What do you think was the cause(s) for these conditions?_____

_____

_____

5. What can you infer about this Egyptian's diet?_____

_____

_____

6. Based on the dental report, what can you infer about food preparation and eating conditions in Egypt?_____

_____

_____

7. Why was the skull disfigured?_____

_____

_____

8. How do you know the age of this mummy?_____

_____

_____

Instructional material prepared by the San Diego County Office of Education and the San Diego Museum of Man in conjunction with the exhibit, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," which opened June, 1992

9. Was this mummy left or right-handed?_____

Why?_____

_____

10. Based on the femurs, do you think this Egyptian was a worker or a higher class citizen?_____

_____

_____

11. Based on these findings, what do you think was the cause of death?_____

_____

_____

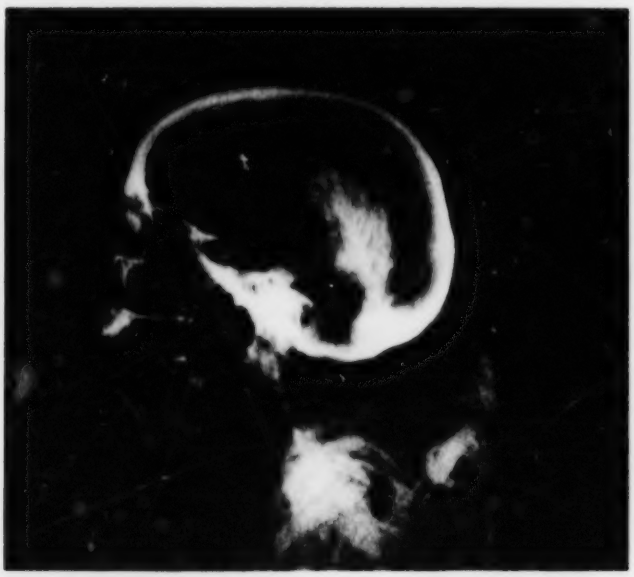


Figure 17: *X-ray of Ptolemaic Mummy* (profile)

Figure 18: *X-ray of Ptolemaic Mummy* (front view)

Instructional material prepared by the San Diego County Office of Education and the San Diego Museum of Man in conjunction with the exhibit, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," which opened June, 1992.

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Questions for Physical Anthropologists:

1. List evidence of the mummification process_____

_____

_____

2. What was not done to this mummy that would have been done for a pharaoh or a very wealthy Egyptian?_____

_____

_____

3. About how old is this mummy?_____

How do you know?_____

_____

4. What evidence leads you to believe the mummy is male?_____

_____

_____

5. What can you infer about this Egyptian's diet and the food in Egypt? Why?_____

_____

_____

6. How would you characterize the size of this individual?_____

_____

_____

7. Based on all evidence, what do you think was the social class and occupation of this Egyptian?_____

_____

_____

Instructional material prepared by the San Diego County Office of Education and the San Diego Museum of Man in conjunction with the exhibit, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," which opened June, 1992.

Questions for Radiologists:

1. List evidence found telling us that not all the usual mummification processes were practiced_____

_____

_____

2. What do you know about the presence of the brain?_____

_____

_____

3. What evidence characterizes the health problems of the individual?_____

_____

_____

4. What have we learned about the inside of the skull and the teeth?_____

_____

_____

5. Are there any inferences about damage to the mummy after the mummification?_____

_____

_____

6. What would the function of the four "rods" be?_____

_____

_____

Instructional material prepared by the San Diego County Office of Education and the San Diego Museum of Man in conjunction with the exhibit, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," which opened June, 1992.

Conclusion of Specialist Findings

Art Historians: _____

_____

_____

Historians: _____

_____

_____

Orthopaedic Surgeons: _____

_____

_____

Physical Anthropologists: _____

_____

_____

Radiologists: _____

_____

_____

Egyptian News

Imagine you are a direct descendent of the man who was buried in these wrappings. Write about your feelings toward this mummy in the form of an obituary for the local newspaper. Type into a newspaper format along with other Egyptian news to create a class newspaper.

Instructional material prepared by the San Diego County Office of Education and the San Diego Museum of Man in conjunction with the exhibit, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," which opened June, 1992.

Preguntas para un historiador de arte:

1. ¿Por qué escogieron estos colores?_____

_____

_____

2. ¿Con qué piensa que aplicaron la pintura?_____

_____

_____

3. ¿Por qué utilizo más dibujos que figuras el artista?_____

_____

_____

4. ¿Qué dibujos representan cosas de la vida diaria egipcio?_____

_____

_____

5. ¿Por qué están en mejor condición algunas secciones?_____

_____

_____

6. ¿Por qué no habían jeroglíficos?_____

_____

_____

7. ¿De qué clase social piensa que pertenecio este egipcio? ¿Por qué?_____

_____

_____

El material de instruccion fue preparado por la Oficina de Educacion del condado de San Diego y el Museo del Hombre de San Diego, conjuntamente con la exhibicion, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," el cual abrio en junio de 1992.

Preguntas para los Historiadores:

1. Enumere las decoraciones que representan el mundo "real" y las decoraciones de la vida futura:

Mundo real	Vida Futura

2. ¿Por qué se eligieron estos dioses?_____

_____

_____

3. ¿Cómo sabe usted de qué sexo es esta momia?_____

_____

_____

4. ¿Son estos dibujos representativos de la vida de este egipcio? ¿Por qué o porque no?_____

_____

_____

5. En base a sus encuentros, ¿qué posición social piensa usted tenía este ciudadano de egipto?_____

_____

¿Por qué?_____

El material de instrucción fue preparado por la Oficina de Educación del condado de San Diego y el Museo del Hombre de San Diego, conjuntamente con la exhibición, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," el cual abrió en junio de 1992.

Preguntas para un cirujano ortopédico:

1. ¿Como cree que toleraban el dolor de espalda en esos tiempos, si no existía pastillas para el dolor, tales como aspirina, "Tylenol", o codeína?_____

2. ¿Cómo puede explicar que le faltaban dientes?_____

3. ¿Enumere todas las enfermedades y condiciones físicas encontradas en esta momia masculina, así como sus efectos:

   Enfermedad Efectos

4. ¿Qué piensa causo esta(s) condiciones?_____

5. ¿Qué puede inferir acerca de la dieta egipcio?_____

6. Basando en el reporte dental, ¿qué puede inferir acerca de la preparación de comida y condiciones de alimentos en Egipto?_____

7. ¿Por qué estaba disfigurado el cráneo?_____

8. ¿Cómo sabe la edad de esta momia?_____

El material de instrucción fue preparado por la Oficina de Educacion del condado de San Diego y el Museo del Hombre de San Diego, conjuntamente con la exhibicion, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," el cual abrio en junio de 1992.

9. ¿Era esta momia derecho o surdo?_____

   ¿Por qué?_____

10. En base a los fémures, ¿piensa que éste egipcio era obrero o un ciudadano de la alta clase?_____

_____

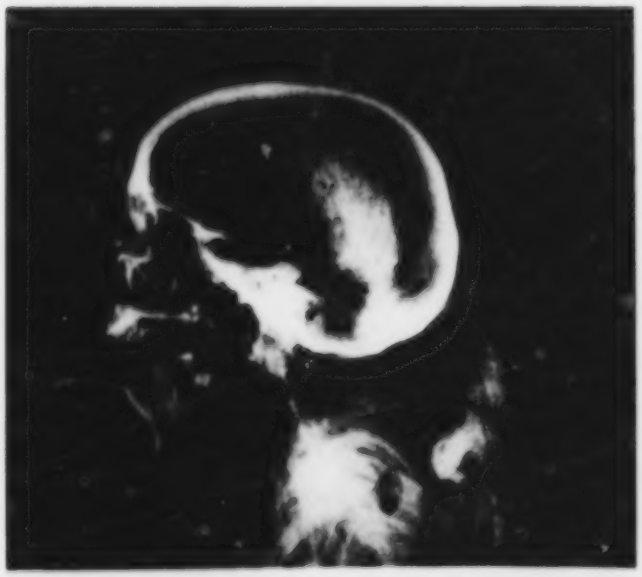
_____

11. En base a los encuentros, ¿qué piensa fue la causa de muerte?_____

_____

_____

Fotografía 19: *momia*



Fotografía 20: *momia*

El material de instrucción fue preparado por la Oficina de Educación del condado de San Diego y el Museo del Hombre de San Diego, conjuntamente con la exhibicion, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," el cual abrio en junio de 1992.

Preguntas para un antropólogo físico:

1. Enumere la evidencia del proceso de momificación_____

2. ¿Qué no fue hecho para esta momia que hubiera sido hecho para un faraón o un egipcio rico?_____

3. ¿Cuántos años tiene esta momia? ¿Cómo sabe?_____

4. ¿Qué evidencia le hace pensar que esta momia es masculina?_____

5. ¿Que puede inferir acerca de la dieta de este egipcio y la comida en Egipto? ¿Por qué?_____

6. ¿Cómo caracteriza usted el tamaño de esta momia?_____

7. Basado en toda la evidencia, ¿de que clase social piensa que era este egipcio y cuál era su oficio?_____

El material de instruccion fue preparado por la Oficina de Educacion del condado de San Diego y el Museo del Hombre de San Diego, conjuntamente con la exhibicion, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," el cual abrio en junio de 1992.

Preguntas para un radiólogo:

1. Enumere evidencia hallada que nos demuestra que no todos los procedimientos de momificación fueron practicadas._____

_____

_____

2. ¿Qué conocimientos tenes acerca de la presencia del cerebro?_____

_____

_____

3. ¿Qué evidencia caracterizo los problemas de salud del individuo?_____

_____

_____

4. ¿Qué hemos aprendido acerca de la parte de adentro de un cráneo y de los dientes?_____

_____

_____

5. ¿Existen conclusiones acerca si le causaron daños a la momia después de del proceso de momificación?_____

_____

_____

6. ¿Cual sería la función de las cuatro "varillas"?_____

_____

_____

El material de instruccion fue preparado por la Oficina de Educacion del condado de San Diego y el Museo del Hombre de San Diego, conjuntamente con la exhibicion, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," el cual abrio en junio de 1992.

Conclusiones de los encuentros de los especialistas

Historiadores del arte:_____

_____

_____

Historiadores:_____

_____

_____

Cirujanos ortopédicos:_____

_____

_____

Antropólogos físicos:_____

_____

_____

Radiólogos:_____

_____

_____

Imainese que usted es un descendiente directo del hombre que fue sepultado en estas coberturas. Escriba de los sentimientos que tiene acerca de esta momia en forma de un obituario en un periódico de la clase con otras noticias egipcios.

El material de instruccion fue preparado por la Oficina de Educacion del condado de San Diego y el Museo del Hombre de San Diego, conjuntamente con la exhibicion, 'Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt,' el cual abrio en junio de 1992

Videodisc Reports on Egyptian Art

Through videodisc-computer technology students can compare some of the most beautiful Egyptian art works in the famous collection of the Louvre Museum, Paris, France with the art works on the second floor of San Diego's Museum of Man.

Objectives:
The student will be able to:

- research a style of Egyptian art found both in the Louvre and the San Diego Museum of Man.
- create an oral report using a tape recorder, videodisc, and computer.

Materials:

tape recorder
tape
field trip to San Diego Museum of Man
Macintosh computer (Plus or SE)
videodisc player
computer interface for videodisc player
voyager videostack software
CD-ROM drive
floppy disks
Louvre Museum videodisc
San Diego Museum of Man Videodisc (when available, possibly in 1993)

Activities:

1. Take a field trip to the San Diego Museum of Man to study the art works in the local collection.
2. Call the Education Department at the San Diego Museum of Art, 232-7981, for an appointment to visit the office level of the San Diego Museum of Art to see the yellow quartzite statue of Ramses II (King of the North and South, Ramses Beloved of Ra User-Maet-Ra Setep-en-ra the favorite of Ra, Son of the Sun. 1290-1280 B.C., 19th Dynasty).
3. Preview the Louvre Museum videodisc for Egyptian art in the third section. Look for Predynastic and Old Kingdom art.
4. Set up the videodisc player for a team of students to use and connect the computer using the interface cable.

Directions:
Each videodisc comes with software to access images or use Voyager videostack software to set up own slide programs. Each student or in pairs is to research and give a short (2-3 minute) oral report on an artist, art style, or art movement. They can use existing library references or use a CD-ROM system if it is available.

They are to put their talk on note cards. Working in teams of two, the students are to then use the computer and videodisc player to compile images that illustrate their report. For example, art works by Egyptian artists can be chosen that will best highlight the student report on a particular art style. These images are then saved in a computer slide list. As the student gives his or her talk in front of the class, another student runs the computer which shows the art images from the videodisc player. Once one or two teams have done their reports, they can tutor other groups in the mechanics of putting together a report.[36]

[36]Based on information in an art lesson developed for the 1991 California Art Education Association meeting in Fresno, California

Symbols from Nature on Egyptian Headdresses and Masks

The goal of this particular lesson is to introduce students to symbolic thought. Symbolism as it relates to nature and its use by ancient Egyptians will be examined.

Discussion

In an effort to teach students to become more thoughtful observers, teachers at the middle/junior high level can help their students develop their perception and judgment as they relate to logic and critical thinking within the four art components. Skills of gathering, analyzing, and interpreting visual and sensory data will be emphasized in this lesson. Particular emphasis will be placed on reading and understanding symbolism as it moves from the concrete to the abstract. At a time when students are growing cognitively, it seems most appropriate to stress that to "see" and understand a work of art you have to do more than merely look. The goal of this particular lesson is to introduce students to natural symbolism as it is used by the ancient Egyptians.

Objectives

The students will:

1. become familiar with the cultural context of headdresses and masks in Egypt as well as their function in the representation of royal life and death in ancient art (**artistic heritage**).
2. become acquainted with headdresses and masks used in life and death and learn about the symbols that are contained within them (**aesthetic valuing, artistic heritage**).
3. come to the realization that cultural context can affect our ability to understand the symbolic nature of a work of art (**artistic heritage**).
4. become aware that masks and headdresses are not sculptures, but rather part of a total costume (**aesthetic perception**).
5. create one or more of the mask or headdress ideas integrating the concepts of symbolism, membership to a group, and ritual or ceremony (**creative expression**).

Vocabulary
Nemset, Uraeus, white crown (hedjet), red crown (deshret), double crown (pschent), Atef crown, Afnet wig cover, ointment cones, Khepresh crown, Amarna, culture, cultural context, artifact, symbol, abstract, stylized.

Instruction

1. Begin this lesson by showing students reproductions of Egyptian masks and headdresses. Tell your students that to see and understand a work of art, you have to do more than merely look. Model the process of reading a headdress and/or mask's symbolism for them. You will find this information provided for you in this guide (see figure 49). As you go along, explain the ritual use of masks and headdresses in ancient Egyptian funerary practices.

2. Show slides or prints of masks or headdresses in the San Diego Museum of Man exhibit to your students. To focus students' interest, have them formulate, in writing, five questions about a piece. You will use these questions as a review and to bring the lesson to closure at the end of the period.

   Lead students to an understanding of the mask and the headdress and the culture they came from through questioning strategies and by providing hints and bits of information as you go along.

3. Have students examine the headdresses or masks. Tell them that a Uraeus is the symbol of and is represented by a cobra. Ask what the snake on the headdress might represent. Once you have established with students that the headdress decoration represents a snake, ask how the headdress is like the real snake, upright, about to strike. How is it different? Do the same with pictures of a vulture (symbol of Upper Egypt) and a hawk, as art experts may see elements of all three of these living beings in parts of ancient Egyptian royal headdresses.

4. Artists use animals as symbols in many cultures. Ask your students to name or identify some animal symbols in their culture (bears, eagles, lions, etc.). Then continue questioning: Why do they think the creator of this headdress chose to represent creatures of the earth and air? What could the vulture and cobra signify? After students have puzzled for a bit, and while they are still looking at the slide or print (figure 49) of the headdress, read the historical material about the union of Upper and Lower Egypt (see Social Studies text pp. 189-190). Show them the image of the headdress as it is worn in the gold

funerary mask of King Tutankhamen (see Social Studies text p. 72) and in carved reliefs in the San Diego Museum of Man. Examine the symbolism of the piece and how it supports the idea that resurrection in the Egyptian society is tied directly to the relationships of human beings with their symbols of gods in nature.

5. At this point, explain to your students that we cannot fully understand the purpose and meaning of art unless we become familiar with the culture and era from which it came - art's place in the lives of the people and the symbolism used (cultural context).

6. Point out that from the history they learned, the headdress is not sculpture meant to sit on a pedestal (static). To the ancient Egyptians, the headdress and mask in funerary practices were part of a costume associated with powerful qualities. Adult members of the royal family in life wore pleated garments, sandals, and broad collars. Without the costume, the headdress would appear incomplete to the Egyptians who saw it. Ask your students to consider the following aesthetics questions: Should a utilitarian cultural artifact that is traditionally worn in a funerary ritual be exhibited in a museum? Is it art? Why or why not? Is exhibiting the headdress apart from its costume misleading to the viewer? Does seeing the headdress separately enhance or detract from its beauty? Why or why not?

7. As a closing activity, ask your students to review with you questions that are important to an understanding of art, symbolism, ideas, customs, and rituals. For example, what does the work of art mean? Who created it? What type of culture and time period did it come from? What is the artwork telling us about the values, ideals, and customs of the artists who created it?

Production Ideas

1. Symbolism in Headdresses for Today

In an effort to understand better the beliefs, feelings, and traditions of the ancient Egyptians, have your students create a headdress (hat) that can be worn as a badge of membership in a club or group (track team, honor society, rock group, computer wizards) or for participation in a certain ceremony or rite (coming of age, dating ceremony, good luck on tests). Using an old baseball cap or hat brought from home (or a form such as a disposable cardboard painter's bucket or plastic bowl that students can tie to their heads), have them paint, glue, or sew on ornamentation, symbols, and designs that represent the customs, traditions, and rituals of the club. Materials might include found objects, glue, needles, thread, acrylic or fabric paint, pariscraft, clay, shoe polish, yarn, ribbon, raffia, etc.

If you have difficulty securing the above-mentioned materials, have students design and cut the base of the headdress out of pliable railroad board with adjustable tabs. Ample room should be left so that the tabs can encircle the back of the head and be stapled to form the flat shape into a three-dimensional hat once the surface treatment (decoration) has been completed. Students can use

found objects as well as create them out of cardboard. You may want to make a teacher's headdress as an example, selecting symbols such as light bulbs (for ideas), miniature books, a torch of knowledge, a scroll or diploma, and even an apple (plastic or papier mâché). The possibilities are endless. Have students discuss the function of each headdress.

2. Mud and Plaster Mask

Examine the painted mud covered coffin in the San Diego Museum of Man. Create a funerary mask out of mud or clay on a paper armature, and coat it with plaster. Paint it. The surface of the mask could be embellished through the addition of painted jewelry or clothing to form rhythmic patterns. Contrasts and variety can be used to give emphasis to various features contained within the form.

3. Newspaper and Glue Mask

Have your students create masks like the Egyptians or as masks symbolizing their life, membership in a group, or as used in a ceremony or rite.

Begin with a paper plate curved and stuffed with newspaper. Secure with masking tape.

Add features using rolled up newspaper, toilet rolls, paper towel rolls, styrofoam meat trays, etc. Secure steadily with masking tape, making sure features don't move, yet the back is not covered with tape.

Using strips of newspaper and a mixture of 1/2 white glue and 1/2 water, papier mâché the mask heavily, letting it dry completely between applications. Make sure all edges are smooth, yet back is not fully covered since you will be cutting this portion out.

Before applying last layer of papier mâché, cut out back panel and pull out newspaper stuffing. Now apply last layer smoothing over the cut edge.

Next, using toilet paper wadded up and dipped in glue and water mixture, sculpt facial features - eye ridges, nose, mouth, etc. The toilet paper will have a clay consistency.

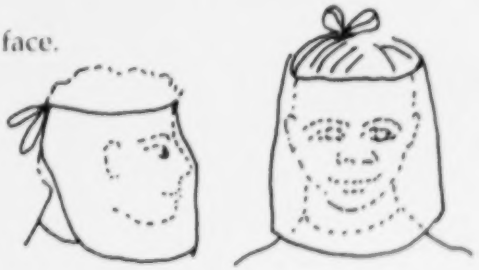
Let mask dry completely, then paint and decorate.

4. Cloth Egyptian Headdress (as seen on back cover)

The Egyptian desert was hot and all Egyptians needed protection from the sun. The quality, fabric, and adornments of the headpiece marked your social class and membership in a group. Special headdresses were used for ceremonies and rituals. Have your students create their own fabric headdress with material from home or the store.

Each student will need a piece of cloth 28" x 28".

First, tie the cloth behind the head covering the face.



Next, lift up the front and pull back over the head, like a groom lifting a bride's veil.

Straighten the "points" at the top of the headdress and lay the bottom corners over your shoulders.

Decorate with fabric paints, sequins, and gems.

Assessment

1. Provide a written or oral quiz for the students, sampling their understanding of the vocabulary words.
2. Ask students to write a paragraph about the ancient Egyptian funerary practices. To what extent did students integrate the lesson?
3. View students' projects and talk to students about their response to the art production assignment. Were they able to create a headdress or mask that represents their interests, club, or society? Did they place obvious effort in their work? What is the level of their thinking and creative elaboration regarding the use of symbolism?

SIGNS OF THE TIMES

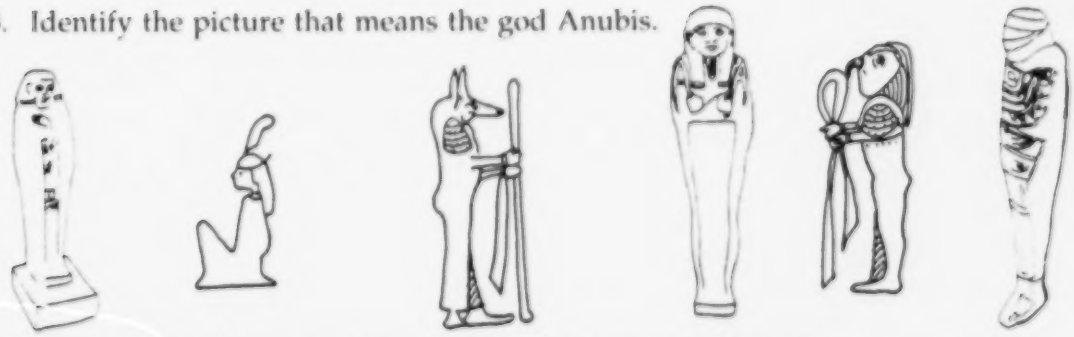
An Art Appreciation Game Based on the Ancient Egyptian Art in the San Diego Museum of Man

Look at the pictures and symbols below which come from objects found in the San Diego Museum of Man.

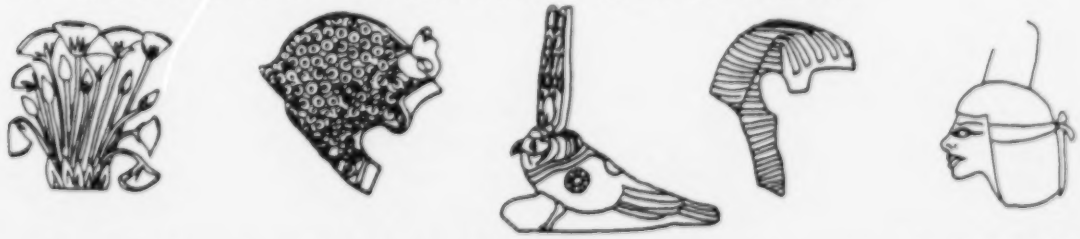
1. Find the "inscription" used for a queen's name.

2. Which headdress or crown signifies Upper Egypt?

3. Identify the picture that means the god Anubis.



4. Circle the headdress one would wear if one were a pharaoh.



Instructional material prepared by the San Diego County Office of Education and the San Diego Museum of Man in conjunction with the exhibit, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," which opened June, 1992.

5. Which of the symbols below is Akhenaten's name?

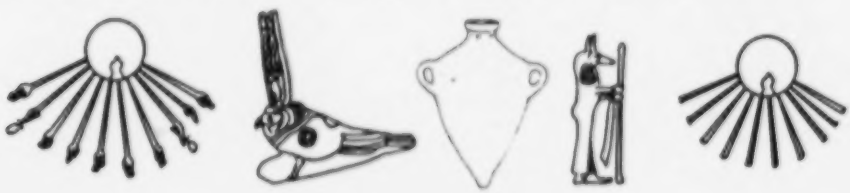
6. Can you find the symbol for the goddess Maet?

7. Can you find the Kheper symbol used in King Akhenaten's throne name?

8. Circle the favorite amulet of the ancient Egyptians.

9. Which was the second most popular amulet in ancient Egypt?

10. Find the symbol for the sun god or sun disk named Aten.



Instructional material prepared by the San Diego County Office of Education and the San Diego Museum of Man in conjunction with the exhibit, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," which opened June, 1992.

SEÑALES DE LOS TIEMPOS

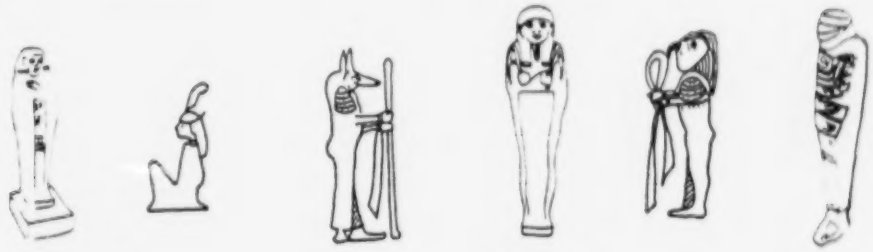
Un juego de apreciación de arte basado en el antiguo arte egipcio en el Museo del Hombre de San Diego

Mire los siguientes dibujos y símbolos que provienen de los objetos encontrados en el Museo del Hombre de San Diego.

1. Encuentre la "inscripción" utilizada para representar el nombre de la reina.

2. ¿Que tocado o corona representa el norte de Egipto?

3. Identifique el dibujo que representa el dios Anubis.

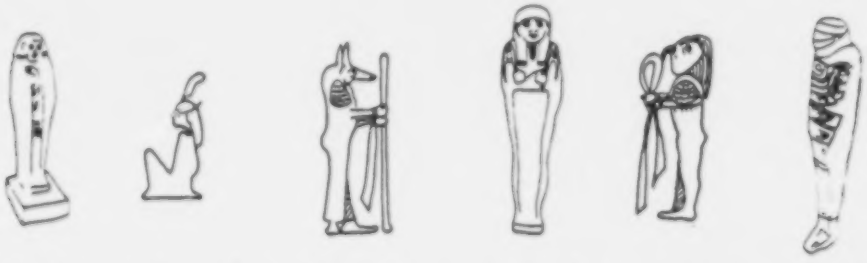


4. Circule el tocado que uno usaría si uno fuera faraón.

El material de instrucción fue preparado por la Oficina de Educación del condado de San Diego y el Museo del Hombre de San Diego, conjuntamente con la exhibicion, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," el cual abrio en junio de 1992.

5. ¿Cual de los siguientes símbolos representa el nombre de Akhenaten?

6. ¿Puede encontrar el símbolo de la diosa Maat?

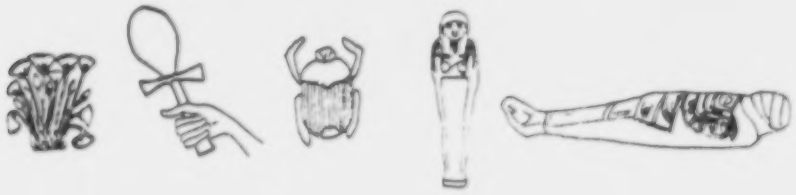


7. ¿Puede encontrar el símbolo Kheper utilizado para representar el trono del Rey Akhenaten?

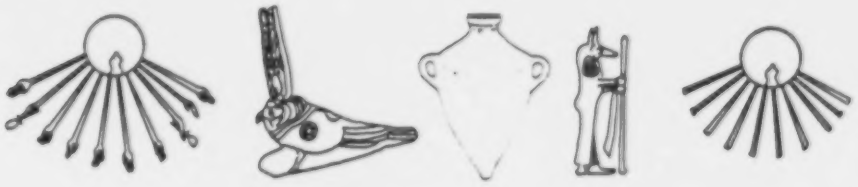
8. Circule el amuleto favorito de los antiguos egipcios.

Instructional material prepared by the San Diego County Office of Education and the San Diego Museum of Man in conjunction with the exhibit "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," which opened June, 1992.

9. ¿Qué amuleto era el segundo más popular en el antiguo Egipto?

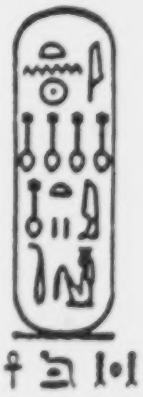


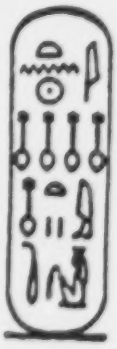
10. Encuentre el símbolo que representa el dios del sol o disco de sol llamado Aten.



El material de instruccion fue preparado por la Oficina de Educacion del condado de San Diego y el Museo del Hombre de San Diego, conjuntamente con la exhibicion, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," el cual abrio en junio de 1992.

Flash Cards





Instructional material prepared by the San Diego County Office of Education and the San Diego Museum of Man in conjunction with the exhibit, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," which opened June, 1992.

Answer Sheet - Flash Cards

Torso of Meritaten (Back View Showing Inscriptions) New Kingdom 18th Dynasty Torso de Meritaten (Visto de atrás donde se miran las inscripciones) Imperio Nuevo Dinastia 18	Nemes Striped Headdress Tocado con rayas de Nemes	Akhenaten's Cartouche New Kingdom 18th Dynasty Cartucho de Akhenaten Imperio Nuevo Dinastia 18
Blue Wig Peluca Azul	Nefertiti's Cartouche New Kingdom 18th Dynasty Cartucho de Nefertiti	Nefertiti's Cartouche on a Fragment From a Household Shrine New Kingdom 18th Dynasty Cartucho de Nefertiti que aparece en un fragmento encontrado en un santuario de un hogar
Vulture of Upper Egypt Buitre de Egipto Norte	Ointment Cone Holder (Usually worn on the head) Sostenedor de pomada del cono (usualmente puesto en la cabeza)	Blue Khepresh Crown Corona azul khepresh

Sign of the Times Answer Sheet

SIGNS OF THE TIMES

An Art Appreciation Game Based on the Ancient Egyptian Art in the San Diego Museum of Man

Look at the pictures and symbols below which come from objects found in the San Diego Museum of Man.

1. Find the "inscription" used for a queen's name.

2. Which headdress or crown signifies Upper Egypt?

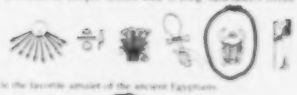
3. Identify the picture that means the god Amahru.

4. Circle the headdress you would infer if one were a pharaoh.

5. Which of the symbols below is Akhenaten's name?

6. Can you find the symbol for the goddess Maat?

7. Can you find the Khepsr symbol used in King Akhenaten's throne name?



8. Circle the favorite amulet of the ancient Egyptians.

9. Which was the second most popular amulet in ancient Egypt?

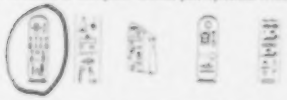
10. Find the symbol for the sun god or sun disk symbol. Hint:

SEÑALES DE LOS TIEMPOS

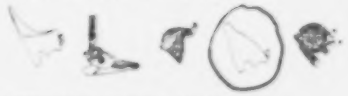
Un juego de apreciación de arte basado en el antiguo arte egipcio en el Museo del Hombre de San Diego

Mire los siguientes dibujos y símbolos que provienen de los objetos encontrados en el Museo del Hombre de San Diego.

1. Encuentre la "inscripción" utilizada para representar el nombre de la reina.



2. ¿Qué tocado o corona representa el norte de Egipto?



3. Identifique el dibujo que representa el dios Amahru.

4. Circule el tocado que usted infiere si uno fuera faraón.

5. ¿Cuál de los siguientes símbolos representa el nombre de Akhenaten?

6. ¿Puede encontrar el símbolo de la diosa Maat?

7. ¿Puede encontrar el símbolo Khepsr utilizado para representar el trono del Rey Akhenaten?

8. Circule el amuleto favorito de los antiguos egipcios.

9. ¿Qué amuleto era el segundo más popular en el antiguo Egipto?

10. Encuentre el símbolo que representa el disco del sol o disco de sol llamado: Hint:

Correcting Egyptian Art

Name _____

Date _____

Let's imagine you were to impose your ideas about what the human figure should look like in art upon the work of an Egyptian sculptor. After all, Egyptian art can look rather peculiar when the faces are turned sideways and the shoulders are front view. Even the eye positioned on a side face view looks wrong because it is frontal in appearance. Direct a partner to pose matching this picture.

Study the image of Mentuhotpe below. How would you go about correcting the peculiarity of the Egyptian Art Style in this carved relief? Have a partner pose for you as you sketch a frontal view and side view, paying careful attention to the placement of the head, eye position, torso, and legs.

Figure 21: *Funerary Stela of Menthuhotpe*

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Correcting Egyptian Art

Funerary Stela of Mentuhotpe	Corrected Profile View	Corrected Frontal View

Instructional material prepared by the San Diego County Office of Education and the San Diego Museum of Man in conjunction with the exhibit, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," which opened June, 1992.

Corrigiendo arte egipcio

Nombre _____

Fecha _____

Imagínese que usted podria imponerle sus ideas a un escultor egipcio acerca de cómo debe aparecer la figura humana en su arte. El arte egipcio si puede a veces tener aparencia peculiar, ya que las caras estan de perfil y los hombros estan viendo para enfrente. Hasta la posición del ojo se mira mal en el perfíl porque se mira como si estuviera viendo para enfrente.

Estudie la siguiente imagen de Menthuhotpe. ¿Cómo haría para corregir las peculiaridades del estilo de arte egipcio en este relieve de madera?

Fotografía 21: *Estela mortuaria de Menthuhotpe*

El material de instrucción fue preparado por la Oficina de Educación del Condado de San Diego y el Museo del Hombre de San Diego, conjuntamente con la exhibición, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," el cual abrio en junio de 1992

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Corriegiendo arte egipcio

Estela mortuaria de Mentuhotpe

Vista de perfil corregida

Vista de enfrente corregida

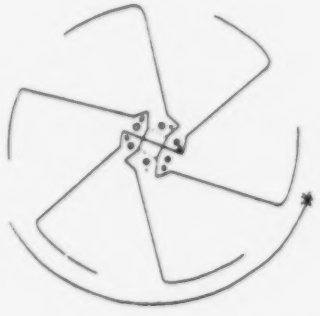
El material de instrucción fue preparado por la Oficina de Educación del Condado de San Diego y el Museo del Hombre de San Diego, conjuntamente con la exhibición, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," el cual abrió en junio de 1982.

Making Mummy Mysteries

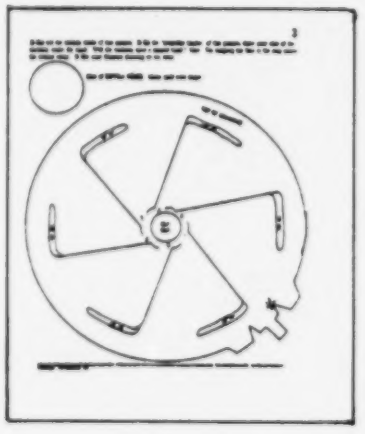
Drawings that interchange with the flip of the wrist can be magic. When those drawings involve a mummy mask and a second mask or a mummy, the change from one to another takes on more of a mystery. To make your Mummy Mystery, you will need to use or transfer these two patterns. You will also need:

- Two sheets of heavy-weight 8-1/2" x 11" paper
- A very sharp pair of scissors or knife
- Colored pencils, or markers
- Glue
- A piece of narrow ribbon or colored paper for the tab

1. Draw a mummy mask on heavy-weight paper, or attach the mummy drawing (with slits) to a second piece of paper. Cut slits in the drawing to match the pattern (pattern #1). ***Do not cut your drawing out***. Decorate the border of your mummy drawing.



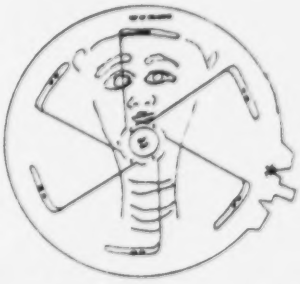
2. Carefully cut the second pattern out. Cut out the center. Place your cut-out drawing on top of your first drawing (mummy mask), and lightly trace selected features so that you have the asterisk on the tab (pattern #2) matching the asterisk on pattern #1. This will give you a good idea where to place the features on your second drawing.



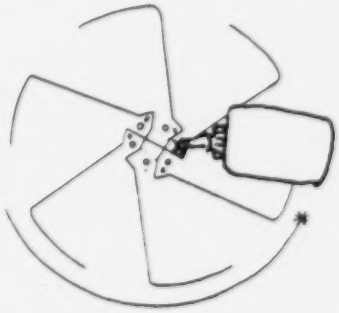
Instructional material prepared by the San Diego County Office of Education and the San Diego Museum of Man in conjunction with the exhibit, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," which opened June, 1992

3. Design and color the second drawing of your "Mummy Mystery" using the second pattern (pattern #2). Use heavy-weight paper as a backing. Or glue the pattern to light-weight cardboard.

4. Put the two patterns together. Place your cut-out drawing underneath your first drawing (mummy mask), with the tabs protruding from the semi-circle at the 6 o'clock position. Match the numbers on the tabs (pattern #1) and the numbers in the circle (pattern #2) when connecting them. Interlock the "propeller blades" of your drawings so that they now slide over the slits in the mummy photo. Fold the tabs open on the dotted lines. Try out your "mummy mystery" by moving the tab along the semi-circle from right to left and back again. ***Make all adjustments and "recuts" before gluing anything down in the next step.***



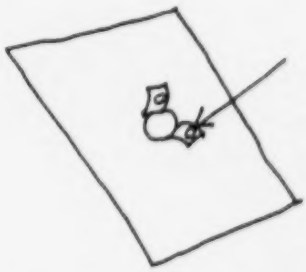
5. Turn your mummy mystery over and put small drops of glue underneath the small pattern dots on pattern #1.



Instructional material prepared by the San Diego County Office of Education and the San Diego Museum of Man in conjunction with the exhibit, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," which opened June, 1992.

6. Attach to a rectangular background the same size as pattern #1 to your first drawing.

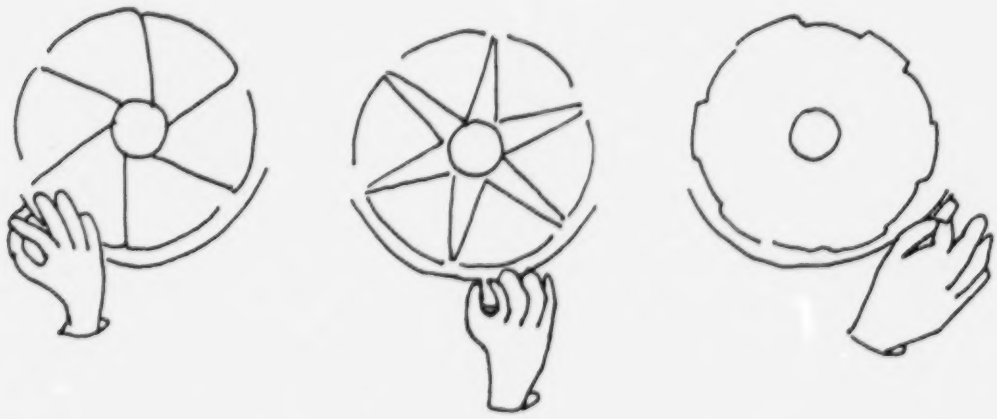
7. Put a drop of glue on each tab.



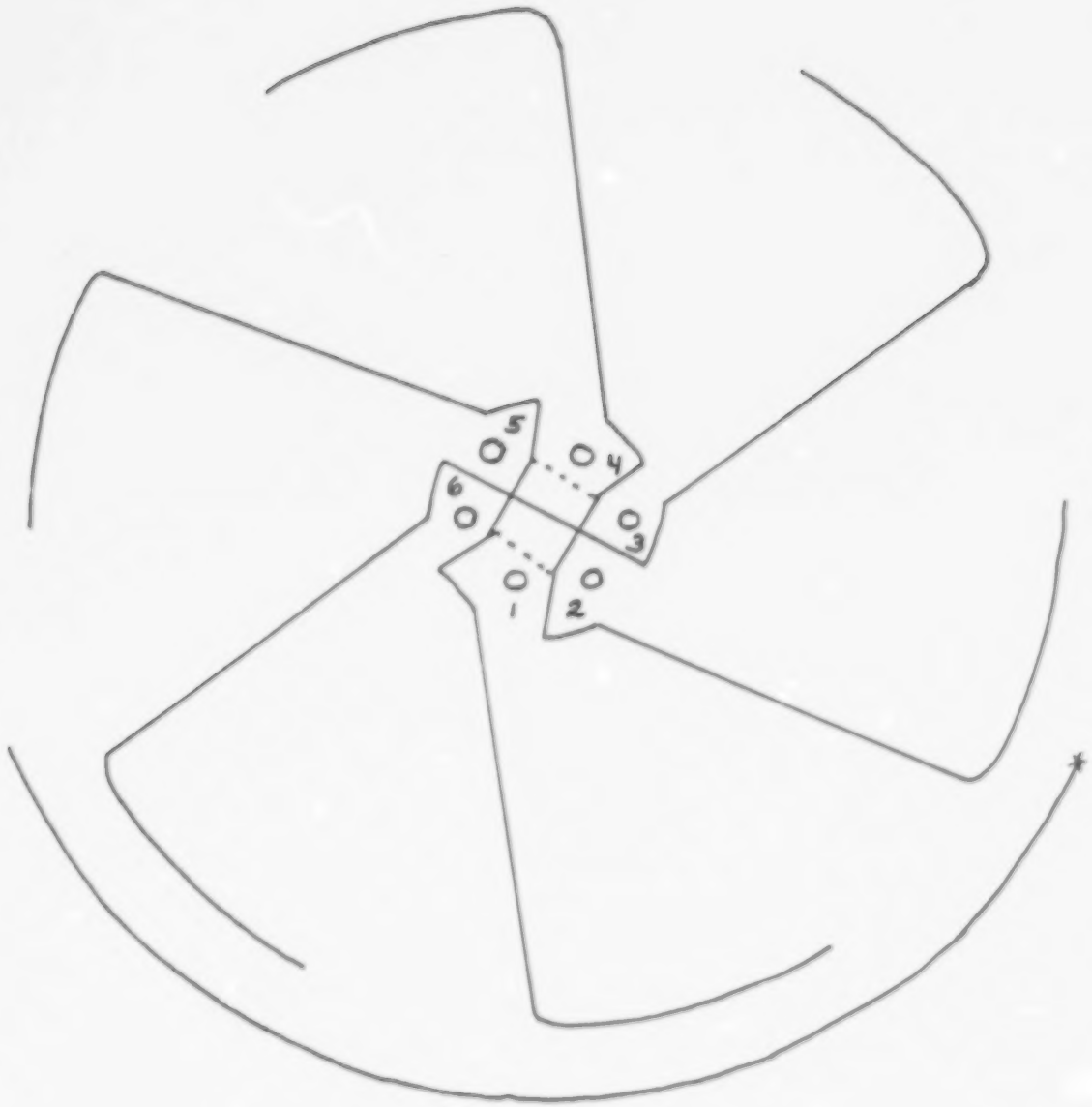
8. Design a shape like a scarab or other amulet shape the size of the small circle on pattern #2 to cover the tabs on the central area.

9. Attach a tab of ribbon or paper to the second drawing.

10. Move the interlocking images back and forth to amaze your friends.



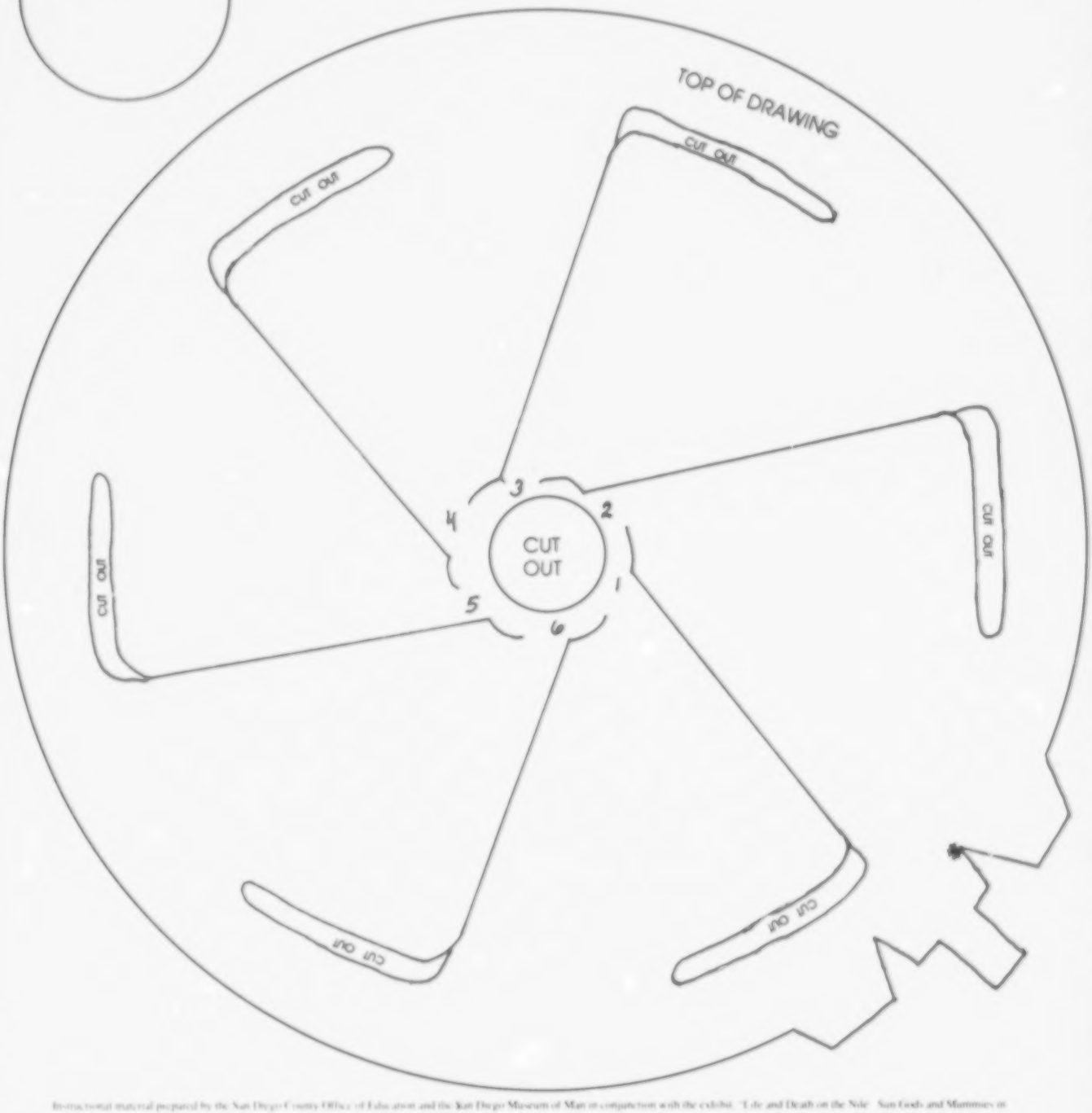
Instructional material prepared by the San Diego County Office of Education and the San Diego Museum of Man in conjunction with the exhibit, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," which opened June, 1992.



Instructional material prepared by the San Diego County Office of Education and the San Diego Museum of Man in conjunction with the exhibit, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," which opened June, 1992

1) Cut out the outside circle of this pattern. 2) On the "propellar blades" of this pattern, draw your idea of the mummy under the mask. Will the mummy have a second mask? Hint: Try keeping the face in the area above the central circle. 3) Cut your finished drawing on the lines

Size of EXTRA PIECE. Make your own shape.



Instructional material prepared by the San Diego County Office of Education and the San Diego Museum of Man in conjunction with the exhibit "Life and Death on the Nile: Sun Gods and Mummies of Ancient Egypt," which opened June, 1992.

Ancient Egyptian Hieroglyphs as an Influence for Incising Designs in Clay[37]

Media-Subject

Introduction to Incised Designs in Clay

Objectives

The students will be able to:

1. examine some pictures of incised pieces of rock, greenware, and bisque clay noting both the visual and tactile qualities including stylized images, linear arrangements and other types of groupings, and size variations as well as the deep, medium, and shallow cuts contrasted with the original surface of each piece (these pieces come from former student work and teacher samples) (see figure 51).
2. utilize the ancient Egyptian hieroglyphs found in Tel el Amarna as an influence on their production of three symbolic clay tiles that use incising and colored slip as methods of creating a design in clay. Each 6 x 6 x 1/2 inch tile will depict a set of related symbols that represent some message or story.
3. decide whether the tiles will be mounted separately or together on a background.
4. locate on a map some of the areas that ancient Egyptian hieroglyphs have come from in this exhibit after viewing four slides of hieroglyphs and receiving pertinent information about them including particular vocabulary words.
5. explain how the historical information and data can contribute to interpreting the hieroglyphs along with describing some of the theories about their origin, purpose, and meaning.
6. become aware of the destruction of many hieroglyphs caused by humans and the value of preserving them.
7. discuss the manner in which the images are hieroglyphs depicted in relationship to each other and to the symbolism suggested by historians and archaeologists as well as through the students' own speculation regarding possible meaning.
8. discuss in an oral critique and written critique the influences and effective qualities associated with their finished incised tiles.

[37]Based on the work of Elisabeth S. Hartung, California Art Education Association Lesson and Unit Plans, October 17-20, 1991, Fresno, p. 60.

Materials
Clay, tools for incising into the clay, colored slips, cutting tools, measuring tool, brush, examples of rock, greenware, and bisque clay with incised designs.

Directions
1. As an anticipatory set the teacher asks the students to study the slide projected on the screen and write down who they think made the image, how they think the image was made and on what, why it was made, and what it possibly means.

2. The teacher passes around pieces of rock, greenware, and bisque clay which have incised designs in them. The students examine the pieces and discuss them (note aesthetic perception).

3. The teacher shows students the slide they originally wrote about in the "anticipatory set" plus others that have hieroglyphic images on them. The students contribute their initial reactions to the first slide taking into consideration the following experience of viewing and touching the incised pieces they examined. The teacher offers information about the hieroglyphs and the process in incising, carving or building up images throughout the discussion and question session. The students point out on the map the Tel el Amarna area (note Artistic Heritage and Culture).

4. The first slide that the students wrote about at the beginning of class will be focused on in relationship to analysis and interpretation (note aesthetic valuing).

5. The teacher will explain to students that they will now have the opportunity to do their own incised designs in clay since it is a method of decoration that artists used on scarabs made of faience. This will be an option for the students' future ceramic pieces. Although an introduction to incising, the three tiles will actually be finished art production pieces that by themselves represent what an artist might do when working on flat surfaces. Since artists are influenced by cultural connections and other artists, the students will use the ancient Egyptian hieroglyphs as an influence for their incising process on the three clay tiles (note creative expression, skills, and knowledge).

6. The students will make three 6 x 6 x 1/2 inch clay tiles and brush on colored slip as soon as they are leatherhard (the drying time can be accelerated by a fan). Students then incise a planned design (sketched out in their sketchnotebook) that has some symbolization and influence from the hieroglyphs just studied. Their symbols can be personalized.

7. Once the tiles are done, they will be fired and then mounted on wood or cardboard.

8. The tiles will be displayed and discussed in relationship to the influence that helped create them and to incising as a decorative process for clay. The vocabulary words and important information of the lesson will be reinforced during this critique. Students will write their final evaluation of the three tiles in their sketch-notebook (note aesthetic valuing part 2).

Vocabulary

Clay (review), colored slip, incised line (shape), leatherhard, tile.

Evaluation

1. Did the student write a final evaluation in his or her sketch-notebook which covered the following areas: a) At least three statements that relate the influence that the ancient Egyptian hieroglyphs had on the three tiles. b) A description, analysis, and interpretation of the three tiles as if the student were an art historian. c) At least one statement that explains the most effective qualities of the tiles and one statement that tells how the tiles could be even more effective.
2. Can the student locate on the map some of the regions where the ancient Egyptian hieroglyphs were found?
3. Can the student explain and speculate about the origins, purposes, and meanings of the hieroglyphs shown in the slides?
4. Are the clay tiles approximately 6 x 6 x 1/2 inches before firing? Did the student make and design three clay tiles? Has the student used colored slip on at least one tile and a variation of incised lines and slopes on all three tiles? Are the edges of the tiles beveled to avoid sharpness? Is it evident that at least two influences occurred from the hieroglyphs? Are the tiles mounted neatly and effectively on wood or cardboard?

Egyptian Style Relief Carving in Plaster
Creating a Carved Fragment

Objectives:
The students will be able to:

1. examine printed and slide-formatted fragment samples to observe the stylized images, arrangement of subjects, and hieroglyph placement (**Aesthetic Perception**).
2. discuss, after examining fragments, information about the figures on the fragments, and how this art form helps "tell" the story of Egyptian life; discuss the importance of preserving this form of recorded history (**Art History**).
3. discuss the images and their relation to each other; note symbolism used by the Egyptian artists, as well as classmates, to critique qualities associated with their finished fragments (**Aesthetic Valuing**).
4. create their own carved fragment from a tile grout slab based on the observed fragments from San Diego Museum of Man; fragments will then be painted with water colors and displayed (**Creative Expression**).

Display Items:
1. Students observe the display items from the San Diego Museum of Man noting the style of the figures, their position on the fragment, the arrangement of subjects and hieroglyphs, symbols used, and the relation of these images to each other.
2. Students discuss what these fragments tell them about the people and the daily lives.
3. Students discuss the historical quality of this form of art and its important role to archeologists to help unlock the past.

Materials: White tile grout, styrofoam meat trays (one per student), carving materials (mechanical pencils without lead, large paper clips, pointed scissors), tub for mixing grout, measuring cups, large rubber spatula for mixing, watercolor paints and brushes, pencils, and scratch paper.

1. Have students sketch an idea for their fragment on scratch paper paying close attention to the stylized figures and hieroglyphs.
2. While students are practicing, mix and pour tile grout into the meat trays, making sure it is at least 3/4" thick; otherwise it will break when carving. This will make a tile grout "slab."
3. When completely dry, have students lightly draw on the tile grout slab their "scene."
4. Using carving materials, etch out the scene in the tile grout slab slowly and carefully making sure you don't crack the slab.

5. Using watercolor paints, paint all or parts of the scene.
6. (Optional) Carefully break-away edges of the slab to give it a "fragment" look.

Evaluation
Observe and discuss the students' work to see if they were able to capture the stylized features and arrangements similar to the San Diego Museum of Man pieces.

The sixth grade state-adopted curriculum in the visual arts, called *Discover Art*, has three lessons including ancient Egyptian art objects and architecture.[38] In one activity students are given examples of sculpture and asked to imagine that the classroom is a sculpture studio in ancient Egypt. Pictured in that lesson is the beautiful painted limestone sculpture of Queen Nefertiti which was actually discovered in a sculptor's studio in Tel el Amarna by German archaeologists in the 20th century.[39] Students might look at this model of the queen's head and discuss whether or not other views of this famous head would be as nice as this profile view.

[38]Laura Chapman, *Discover Art*. Worcester: Davis Publications, Inc., 1985, pp. 32-33, 45, 50.
[39]*Ibid*, p. 33.

Egyptian Pottery

The goal of this lesson is to have students observe and discuss features depicting predynastic Egyptian pottery as compared to stylized pottery from the New Kingdom period.

Objectives:
Students will be able to:

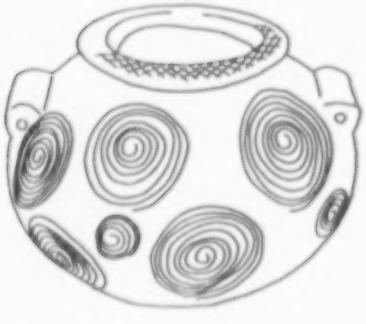
1. become familiar with the features (shape, texture, decoration) depicting a Predynastic pot from a New Kingdom pot (**Aesthetic Perception**).

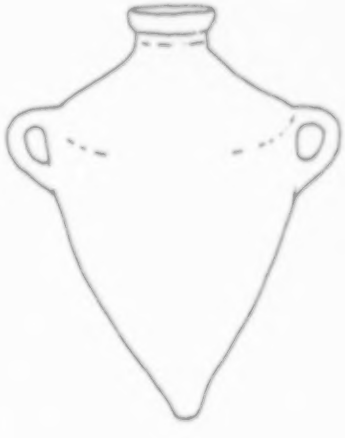
2. become familiar with the cultural context of pottery and its function within Egyptian daily life (**Artistic Heritage**).

3. recognize the use of symbols and their meanings used as decorations on the pottery (**Art History and Criticism**).

4. recognize each piece of pottery as not only a functional vessel, but also as a piece of art, a personal expression by the creator (**Aesthetic Valuing**).

5. create an individual coil-pot based on the shapes, designs, and textures of the Predynastic and New Kingdom pottery (**Creative Expression**).





Display Items
1. Begin this lesson by showing the slides of the Predynastic pottery from the Egyptian exhibit.
2. While viewing the slides have students discuss common features of the predynastic pottery regarding shape, color, texture, and designs. Discuss the symbols and their meaning in the lives of the users. Record these features and symbols on the board, butcher paper, or overhead.

3. Next, show the slides of the New Kingdom pottery. Have students discuss common features and how these vessels differ from the earlier pottery. Why do they differ? How are the symbols different? Why are the symbols different? Record the features and symbols.

4. Discuss the time periods and the lifestyles of the Egyptians during the different periods. What has changed? How are the functions of the pots still the same? Different?

5. As a closing activity, have students think of pottery in their homes and the function of the pottery. Make clusters of the pottery based on their functions, shapes, or symbols (could be a homework assignment). Then have students compare their pottery to that of the Egyptians. How is it the same? How is it different?

Production

Materials: Red clay, string for cutting clay, plastic to cover work area, plastic knives, forks, and spoons for texture, small tubs for water, kiln, and pottery paint.

1. Cover work area with plastic. Use string or wire to cut off sections of clay for students.

2. Roll clay into a long snake.

3. Begin to coil base of the pot then stack the coils to make the sides. Students need to use a little water to keep the clay moist and "pinch" each coil onto the next.

4. Once the desired shape is achieved use the plastic silverware to smooth the sides, connect the coils, and create texture. Add handles or other features.

5. Let dry for 24 hours and then fire in kiln. Paint on designs and fire again.

Evaluation

1. Provide a written or oral quiz sampling students' understanding of the pottery features.

2. View students' pottery to see the extent that they incorporated predynastic or New Kingdom pottery features on their own works.

Ushabtis or Amulets of Paste

Faience, or Egyptian Paste, was invented during the first two dynasties as an inexpensive substitute for fine, colored stone.

Objectives:
Students will be able to:

1. examine the paste Ushabtis in pictures and in the exhibit noticing their sculptured form and detail (**Aesthetic Perception**).
2. After examining the objects, they will discuss their usefulness and purpose in Egyptian culture (**Art History**).
3. The students will appreciate the delicate construction and the large volume of figures created as they prepare to create their own examples (**Aesthetic Valuing**).
4. The students will use the Ushabtis to develop their own designs with similar characteristics (**Creative Expression**).

Materials
Examples or reproductions of Ushabtis or amulets. Purchase professionally prepared paste or weigh your own ingredients on a gram scale following a formula like the one below. You'll also need firebricks, nichrome wire or small enamelling trivets, dishes (1/2 lb. margarine container), spoons, paper towels. Small plaster-of-Paris or grout slabs (paper mold) and nails or other carving tools.

Procedure
1. Display and discuss ushabtis as an ancient Egyptian art form (see figures 63 and 64).
2. Have students develop a frontal design on scratch paper that fits the size of their press molds.
3. Nails or other tools (sharpened dowels) can be used to increase line design in the mold. Note: the design will appear in reverse. Lines should be about 1/8" deep and cleanly carved. Some variation in depth and width would add interest.
4. Mix the paste in a plastic dish. Add water slowly until the mixture is workable. It should not be soupy. If too much water is added, add more of the prepared powder or leave lid off the container overnight or wet mixture on paper towels and pat back and forth to work out excess moisture until it will roll off towel like a snow ball.

5. Roll the paste into a thick worm or coil about the length of a prepared press mold.
6. Using your thumb, press coil into the mold and lift off carefully.
7. Allow to thoroughly dry before firing. Glaze incredients will form crystals on the surface. Handle the dried paste carefully so the crystals don't brush off. The back side will not have the glazed "look" unless the form is dried in a raised position.
8. If students wish to make beads or jewelry amulets holes need to be made in shapes while they are still wet. Each piece can be "hung" for firing using nichrome wire. Forms will sag.
9. Bisque fire the ushabtis or amulets at cone 08.
10. Flaws can be repaired by grinding and touching the damaged areas with clear nail enamel.

Evaluation
Observe and discuss the students' work to see if they were able to capture the stylized features and details similar to the San Diego Museum of Man.

EGYPTIAN PASTE
Sodium Bicarbonate, Copper Carbonate,
Cone 06 (Lead Free)
The principle of a self-glazing clay was originally developed in ancient Egypt and is available to you as Egyptian Paste. It is ideal for making beads, pendants, buttons, etc. Just add water to the powder to make a thick paste. Shape by hand or press mold. As the piece dries, a powder film comes to the surface. This is the "glaze." A hole must be made in each piece, as firing must be done by suspending the piece on nichrome wire. Laguna Clay offers this product in White and Copper Blue. To color the white Egyptian Paste, oxides may be added, but should not exceed 10%.

Cat. #	Color	1 Lb.	5 Lb.	10 Lb.	25 Lb.	50 Lb.
CD-401	White	$1.35	$1.17	$ .99	$ .81	$. 63
CD-402	Copper Blue	$1.60	$1.41	$1.20	$ .99	$ .78

Prices are per pound.

1992 Product Catalog: Laguna Clay Company
Ceramic Research and Supplies
14400 Lomitas Avenue
City of Industry, CA 91746
800-338-8846

Egyptian Paste or Faience is made from Sodium Bicarbonate (6%); Soda Ash (6%); Copper Carbonate (3%); Nepheline Syenite (30%); Silica, 325 mesh (30%) and Ball Clay (25%).

1. Sodium Bicarbonate - common baking soda.

2. Soda Ash, $Na_2 CO_3$ - an active flux which increases strength and flexibility

3. Nepheline Syenite A 270, $K_2O\ 3Na_2O\ 4Al_2O\ 9SiO_2$ - a soda spar. It can reduce crazing tendencies when added to a clay body. Also used in glazes where spar is required.

4. Copper Carbonate Green, $CuCo_3$ - a green powder used as the paste or glaze coloration. Depending on conditions and formulation it may produce blue-green. Because it is TOXIC IN RAW FORM, students might work with white Egyptian Paste formulas instead.

5. Ball Clay, $SiO_2\ Al_2\ O_3$ - this is a clay made primarily of Silica SiO_2, also known as flint, and Alumina Oxide Al_2O3. Silica increases the thermal expansion in clays. Alumina Oxide prevents devitrification and adds strength.

6. Silica, 325 mesh - the chemical silica forms an important part of most igneous rocks. As a member of the quartz family, it is one of the most common minerals in the earth's crust. You have seen it in sand just as the ancient Egyptians did. When silica is ground very fine, only certain grains will pass through the screen on a sieve. The mesh size (325 in this case) is the number of open spaces per square inch. Thus the lower number mesh sizes (30 to 80 mesh) will let larger particle material pass through the screen than the higher number mesh sizes (100 to 325 or higher).

Magic in Ancient Egyptian Art

Name _____ Date _____

1. People have always been popular subjects with artists. Which of these images of people are of real people and which one appears to be of imaginary creatures?

	REAL	IMAGINARY
Titles	_____	_____
Titles	_____	_____

2. How many different media or materials do you see used by the artists to create these art works?

3. How would the choice of materials affect the stance and/or posture of a sculpture?

4. Which one of the sculptures looks as though it was created within the original shape of the medium?

5. Which sculptures give the view or the illusion of action? How did the artist create this illusion?

6. Which sculpture has the most details? Describe the details.

7. Which art work do you think is the most valuable? Why do you think it is valuable?

8. If you could have one of these art works for your very own, which one would you choose? Please explain the reasons behind your selection.[40]

[40]Based on questions developed by the Philadelphia Museum of Art.
Instructional material prepared by the San Diego County Office of Education and the San Diego Museum of Man in conjunction with the exhibit, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," which opened June, 1992.

Magia en el arte egipcio antiguo

Museo del Hombre de San Diego
(Colección permanente)

Nombre_____

Feche_____

1. Las personas siempre han sido un sujeto popular para los artistas. ¿Cual de estas imágenes de gentes son de verdaderas personas y cuales aparentan ser creaturas imaginarias?

	VERDADERA	IMAGINARIA
Títulos	_____	_____
Títulos	_____	_____

2. ¿Cuántos medios diferentes o materiales mira usted que utilizo el artista para crear estas obras de arte?
3. ¿Cómo afectaria la selección de materiales en la posición o postura de una esculptura?
4. ¿Cual de las esculpturas se mira como que fue creada con la imagen orignal del modelo?
5. ¿Cual esculptura se mira o da la ilusión de estar en acción?
6. ¿Cual esculptura tiene más detalle? Describa los detalles.
7. ¿Cual obra de arte piensa que sea más valiosa?
8. ¿Cual obra de arte escogeria, si usted pudiera tener una? Por favor explique las razones de su selección.[41]

[41]Basadas en preguntas desarrolladas por el Museo de Arte de Filadelfia.
El material de instrucción fue preparado por la Oficina de Educación del Condado de San Diego y el Museo del Hombre de San Diego conjuntamente con la exhibición, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," el cual abrió en junio de 1982.

Discovering Egyptian Sculptures [42]

Name _____ Date _____

Answer these questions while viewing the exhibit.

1. Which sculpture do you suspect dates back the furthest? Why do you think that sculpture is the oldest?

2. Which sculpture is the most likely to have been created recently? State your reasons why.

3. Which sculptures do you think were created for religious purposes? Why did you select these sculptures? What purpose do you think these ***religious*** sculptures fulfilled?

4. Which sculptures do you think were created as a tribute to ***great people*** of their time? State your reasons why.

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[42] *loc. cit.*
Instructional material prepared by the San Diego County Office of Education and the San Diego Museum of Man in conjunction with the exhibit, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," which opened June, 1992.

5. Which sculptures do you think were created for ***art's sake*** and state your reasons why.

6. Which sculpture is the most ***realistic*** in style? Why?

7. Which sculpture is the most ***abstract*** in style? Why?

8. Which sculpture do you find to be the most interesting? Why?

Instructional material prepared by the San Diego County Office of Education and the San Diego Museum of Man in conjunction with the exhibit, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," which opened June, 1992.

Descubriendo esculturas egipcios [43]

Nombre: _____ Fecha _____

Conteste estas preguntas mientras mire la exhibición.

1. ¿Cual esculptura sospecha que sea más antigua? ¿Por qué piensa que es la más antigua?

2. ¿Cual esculptura es más probable que fue hecha recientemente? Explique su respuesta.

3. ¿Cual esculptura piensa usted que fue creada por razones religiosas? ¿Por qué selecciono estas esculpturas? ¿Qué funciones llenaban estas esculturas ***religiosas***?

4. ¿Cuales esculpturas piensa usted que fueron creadas como un tributo a ***gente magnifica*** ? Explique sus razones.

---

[43] *loc. cit.*
El material de instrucción fue preparado por la Oficina de Educación del Condado de San Diego y el Museo del Hombre de San Diego conjuntamente con la exhibición "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," el cual abrio en junio de 1992.

5. ¿Cuales esculpturas piensa usted fueron creadas solo por ***razones artísticas***? Explique sus razones.

6. ¿Cual esculptura tiene un estilo más ***realista***? ¿Por qué?

7. ¿Cual esculptura tiene el estilo más realista? ¿Por qué?

8. ¿Cual escultura encuentra usted más interesante?

El material de instrucción fue preparado por la Oficina de Educación del Condado de San Diego y el Museo del Hombre de San Diego, conjuntamente con la exhibición, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," el cual abrió en junio de 1992.

Assessment in Egyptian Art

Note to the teacher: Given below are sample questions. Any image could be placed in the box(es) below.

Name: _____

Date: _____

You have the whole period to write on *one* of the topics given below. Limit your discussion to the art of Egypt.

Whenever you make a point, *give a specific example* to support it. Support your generalizations with examples.

Your opening sentence should explain what you are going to do, then do it.

Essay Question #1:
Compare the two images shown to you. Explain how these images differ from one another and how the people differ in style, in their station in life, and how these two objects differ as works of art (cite examples of similar works as you discuss them). Be sure to identify the images you are writing about such as Figure 22 or Figure 23.

Figure 22: *Graeco-Roman Mask*

Figure 23: *Mummy Mask*

Instructional material prepared by the San Diego County Office of Education and the San Diego Museum of Man in connection with the exhibit, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," which opened June, 1992.

Essay Question #2 :
Trace the development of the female figure as she appears in Egyptian sculpture (relief and in the round) in the New Kingdom. How is she depicted as a teenager and as an adult? Give examples.

Essay Question #3:
The illustration here (Figure 24) is a fragment of a larger work of art. Describe what the whole sculpture looked like. Also, write something about the changes that took place in this kind of sculpture. What would this subject look like if this were carved many years before?

Figure 24: *Fist*

ESSAY

Evaluación sobre arte egipcio

Nota al maestro: Las preguntas que siguen son muestras. Se puede colocar cualquier imagen en el(los) cuadro(s) siguientes:

Nombre: _____

Fecha: _____

Usted tiene un período completo para escribir sobre *uno* de los temas siguientes. Limite su discusión al arte de Egipto.

Cuando establezca un punto, proporcione *un ejemplo específico* para apoyarlo. Apoye sus generalizaciones con ejemplos.

Su oración de apertura debe explicar lo que usted va hacer - después hágalo.

Tema #1:
Compare las dos imágenes que le fueron demostradas. Explique cómo estas imágenes se distinguen de la otra y cómo la gente difiere en su estilo, en sus vidas, y cómo estos dos objetos se distinguen como obras de arte. Mientras discute dichos objetos, cite ejemplos de obras similares. Asegúrese identificar las imágenes respecto de las cuales esta escribiendo, tal como Figura 22 o Figura 23.

Figura 22: Mascara Graeco-Roman

Figura 23: Mascara Momia

El material de instrucción fue preparado por la Oficina de Educación del Condado de San Diego y el Museo del Hombre de San Diego, conjuntamente con la exhibición "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," el cual abrió en junio de 1992.

Tema #2:
Reconstruya el desarrollo (apariencia de la figura femenina como aparece en la escultura egipcio (en relieve y en redondo) en los Imperios Nuevos como una adolescente y como adulta. Proporcione ejemplos.

Tema #3:
La presente ilustración (Figura 24) es una copia fragmentada de una obra de arte más grande. Describa cómo era toda la escultura. Así mismo, escriba acerca de algunos de los cambios que atravesó este tipo de escultura. Es decir, ¿cómo se miraría este sujeto si hubiera sido esculpida muchos años antes?

Figura 24: *puño*

TEMA

El material de información fue preparado por la Oficina de Educación del Condado de San Diego y el Museo del Hombre de San Diego conjuntamente con la exhibición en: Life and Death on the Nile: Art, Craft, and Materials in Ancient Egypt, celebrada en el año de 1992.

Looking at Art From the Past

Name _____

Date _____

When you look at art from the past and you wish to study it from a historical point of view, you might ask yourself these questions:

1. What was its purpose?
2. What is its main subject?
3. What does it tell you about the past?[44]

Pictured below are some objects in the San Diego Museum of Man exhibit from ancient Egypt. Answer one of the questions above for one of the art works pictured here.

Figure 25: *Low Stool*

Figure 26: *Ushabti*

Figure 28: *Tile Fragment*

Figure 27: *Grape Cluster*

[44]Armento, p. 204.
Instructional material prepared by the San Diego County Office of Education and the San Diego Museum of Man in connection with the exhibit "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," which opened June, 1992.

Mirando el arte del pasado

Nombre_____

Fecha_____

Al ver el arte del pasado y si usted desea estudiarlo desde un punto de vista histórico, usted podrá preguntarse las siguientes preguntas:

1. ¿Cuál es su propósito?
2. ¿Cuál es el tema principal?
3. ¿Qué te demuestra del pasado?[45]

En las fotos siguientes, están cuatro objetos de la exhibición de Egipto antiguo del Museo del Hombre de San Diego. Para cada uno de las obras de arte fotografiadas, conteste una de las preguntas anteriormente expuestas.

Figura 25: Banqueta Corta

Figura 26: Ushabti

Figure 28: Fragmento de Losa

Figura 27: Racimo de Uvas

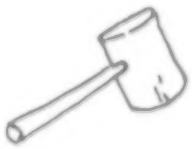
[45] *loc. cit.*
El material de instrucción fue preparado por la Oficina de Educación del Condado de San Diego y el Museo del Hombre de San Diego, conjuntamente con la exhibición, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," el cual abrió en junio de 1992.

Sorting and Ranking Egyptian Art

One of the ways to give all students in the class a chance to think about art is to give them slips of paper mounted on cards with statements on them. Because students place these statements about how they judge and feel about art before an art object face down, no one risks "failure" for expressing one's ideas. Cut out the slips below and mount on cards. Students may place these statements face down in front of art displays in the classroom or in the museum.

This Art work has
the best ideas in it.

This Art work has more
techniques used.



This Art work is
the most beautiful.

I don't think this object is as nice as
the others and wonder why it is called art.

Instructional material prepared by the San Diego County Office of Education and the San Diego Museum of Man in conjunction with the exhibit, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," which opened June, 1992.

This Art work is the most expensive in the room.

$

This Art work took the most time to make.

This Art work is the one I like the best.

This Art work is the one I know is the best in the room.

Instructional material prepared by the San Diego County Office of Education and the San Diego Museum of Man in conjunction with the exhibit, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," which opened June 1992.

Esta obra de arte
tiene las mejores ideas.

Esta obra de arte utiliza
más técnicas diferentes.

Esta obra de arte es la más bella.

Yo no pienso que este objeto sea tan
bonito como los otros, y me pregunto
porque lo llaman arte.

Instructional material prepared by the San Diego County Office of Education and the San Diego Museum of Man in conjunction with the exhibit, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," which opened June, 1992.

Esta obra de arte es la
más cara en este cuarto.

$

Esta obra de arte es
la que tomo más tiempo para hacer.

Esta obra de arte es la que
más me gusta.

Esta obra de arte es la
que yo sé es la mejor en
este cuarto.

El material de instrucción fue preparado por la Oficina de Educación del condado de San Diego y el Museo del Hombre de San Diego, conjuntamente con la exhibición, "Life and Death on the Nile: Sun Gods and Mummies in Ancient Egypt," el cual abrió en junio de 1992.

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Background Information:
Selected Pieces from

LIFE AND DEATH ON THE NILE: SUN GODS AND MUMMIES IN ANCIENT EGYPT

Instructional Materials Prepared by:

San Diego County Office of Education
and
San Diego Museum of Man

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Porphyry Jar
Predynastic, 3500-3100 B.C., Nagada II
Scripps SDM #14986
Porphyry (Top with rim - 1 7/8" wide; sides - 5 1/2" high; diameter - 10 3/4;" across the rim - 7 3/8;" opening - 3 3/4.")
Tel el Amarna

This beautiful wide low stone jar has two handles with horizontal holes through them. It may have been carved with simple flint tools. Quartz was used for polishing the surface.[46] The talented Northerners turned out large numbers of these stone vases of unsurpassed beauty and technique. A vase similar to this one is in the Metropolitan Museum Collection.[47] The colors of the jar, black stone flecked with peach/ivory, are handsome in their contrast. The scattered confetti-like design might suggest wood chips suspended in the air. The regularity of the textured pattern adds to the beauty of the design as well as the contrast between the light flecks and the rich black. The rough chip-like visual texture is in striking contrast also to the actual tactile texture of the container which is a smooth mat finish. The length of the rectilinear-looking handles when seen from above makes a beautiful juxtaposition with the size of the round opening.

Figure 29: *Porphyry Jar*

[46]Hart, p.7
[47]Hayes, William C., *The Scepter of Egypt*, New York: The Metropolitan Museum of Art, 1953, p.23.

Pottery Jar with Spirals
Predynastic, 3500 - 3100 B.C., Nagada II
Bonnett SDM #3011
No site location - identified only as "Upper Nile"

The artist of this jar was copying the design and look of a vessel carved from stone textured with nummulite fossils.

The remarkable condition of this beautiful jar adds to its beauty. The buff-colored jar is decorated with a field of painted spiral designs of different sizes. It was Petrie, a famous Egyptologist, who figured out that clay vessels with representations of smali spirals were trying to represent nummulites, or a group of nearly extinct one-celled animals with a somewhat coin-shaped shell. Eventually, designers seem to have abstracted the nummulites into two or three enormous spirals on the vase instead.[48] The lack of a foot on this jar makes it rock gently on its base with the slightest motion. Before the clay jar was decorated, it was painted with a peach-colored clay. Next, the spirals were painted. Many brush strokes were used to paint some of the spirals. One can see where the paint application was continued in some cases with the lifting of the paint brush. The upper rim of the neck is painted with crisscrossing parallel lines whose angles contrast with all the other spirals on the piece.

Figure 30: *Pottery Jar with Spirals*

[48]Capart, Jean. *Primitive Art in Egypt*. London: H. Grevel and Co., 1905, p. 114.

Pottery Jar
Predynastic, 4000 B.C.
Schurtleff SDM #7698
Clay, 6" high, 8" diameter,
4 1/4" rim diameter
Abydos

This beautifully preserved buff-colored clay jar is decorated with eight vertical panels of waved parallel lines. Because two of the panels transverse over the handles, it would appear there was a disregard for the appearance of them.

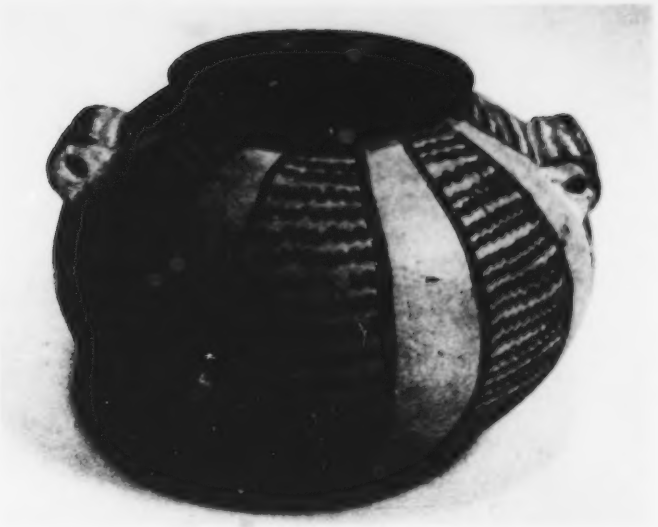

Figure 31: *Pottery Jar*

Jars and Dishes
Predynastic
Scripps SDM
(#8757 - 6 1/4" high, 4 7/8" across mouth; #8758 - 5 1/4" high, 3 1/4" across mouth; #14972 - 14" high, 4" across mouth; #14973 - widest rim, 5 1/2")
Clay

The five jars and dishes of red clay with black burnished surfaces come from the predynastic period known as Nagada. The rarest piece in the collection is #14974 because of its size. Note that this beautiful tall vase has a flat base.

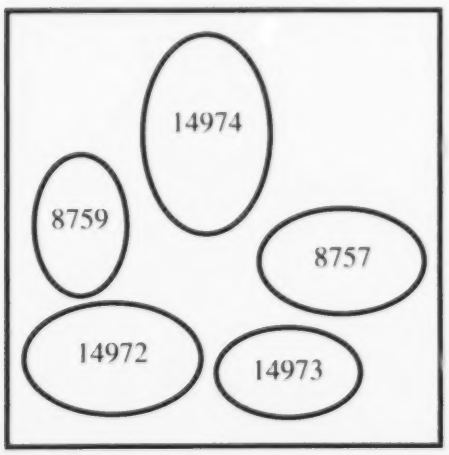

Figure 32: *Jars and Dishes*

Figure 33: *Funerary Stela of Menthuhotpe*

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Funerary Stela of Menthuhotpe
Scripps SDM #14932
Limestone (17 3/4" H, 10 1/2" W, 4" thick)
Abydos

The rectangular shape of this stela represents the entrance to a dwelling with yellow pillars and a lintel. Above the figure a pattern of red and blue panels appears. The man in the doorway wears an unpleated kilt, narrow un-decorated collar, and holds a long rod (walking stick?) in his left hand. The relief sculpture is carved so that the figure is raised from the background. The hieroglyphs are painted light green.[49]

Funerary Statuette
Late Middle Kingdom, 1800 B.C.
Scripps SDM #14931
Limestone (16 1/4" high)
From the tomb of
Menthuhotpe (private person)

This beautiful figure with exquisite and carefully carved facial features (left hand across the chest) is a funerary statuette. This interesting figure is an example of the transitional form of the funerary statue of the preceding period and the ushabtis which came in vogue with the New Kingdom. This figure was found in the tomb of the overseer of the magazines, Menthuhotpe, son of Uja.

The white figure has no traces of paint except in back of the headdress on the right side where traces of blue paint remain. Perhaps the whole figure was painted at one time[50].

Figure 34: *Funerary Statuette*

[49] *Journal of Egyptian Archaeology*, Vol. XIV, 1973, pgs. 239-240.
[50] *loc. cit.*

Manger Relief with Bull
Scripps SDM #14848, two pieces
Limestone (10 1/2" high)
Tel el Amarna

At the Northern Palace, archaeologists found eight stone mangers carved with different animals, possibly part of a royal zoo. Nothing like them has been found elsewhere in Egypt. The lower portion of the bull moving to the left is carved in this sunken relief. Considered as a two-piece unit, the tall curved rectangular shape in front of the torso makes a striking and contrasting parallel to the ragged vertical edge created by the joining of the two sections. Originally, the seams would have been filled, carved, and painted so as to be invisible. The carved flowing lines and smooth plastic form of the animal's body also make a contrast to the roughly hatched ground in which the animal is recessed. Traces of reddish brown paint can be seen in the tail and fore hooves. The distortion of the upper front left leg is a curious diversion from the otherwise naturalistic representation of the bovine. The part that helps us identify if this bull is docile or rampant is the position of the profile head and frontal horns of the animal. Both are missing in this relief. In its normal docile position, the bull is shown standing with his head erect. In this position, the bull is associated with gods of the sun or stars. The bull could also represent the Egyptian king. In its rampant stance, the angry bull is shown with its head lowered and horns positioned at an adversary.[51]

Figure 35: *Manger Relief with Bull*

[51]Wilkinson, Richard H., *Reading Egyptian Art*. Thames and Hudson Ltd. London, 1992, p. 57.

Malkata Vase with Abstract Floral Design
New Kingdom
Scripps SDM #14944
Clay (25" high)

This tall vase of heavily textured (grog) red clay was prepared first with a light yellow or ivory colored coating (slip) before receiving an abstract floral design of blue petals. Three rows of petals appear between the six horizontal bands of blue paint. Each band is outlined in black and divided with a central brown stripe. "Malkata ware" was blue painted pottery named after the palace of Akhenaten's father, Amenhotep III at Malkata on the West Bank at Thebes. The imitation blue lotus petals may represent the garlands that were attached to pottery jars at feasts during this period.[52] Imagine how a series of these pots on a shelf would look, thus lengthening the look of the horizontal bands. The casual appearance of the pot is due to several things. First, there are places where one can see that thin blue paint has dribbled down across other rows of designs. One can see that little or no attempt has been made to calculate the design proportions of the abstracted petal shapes. Some shapes are narrow, some are wide. Finally, the brush work appears to be brief notations, applied with a minimum of brush work. Note the thin dark outlines around the petals.

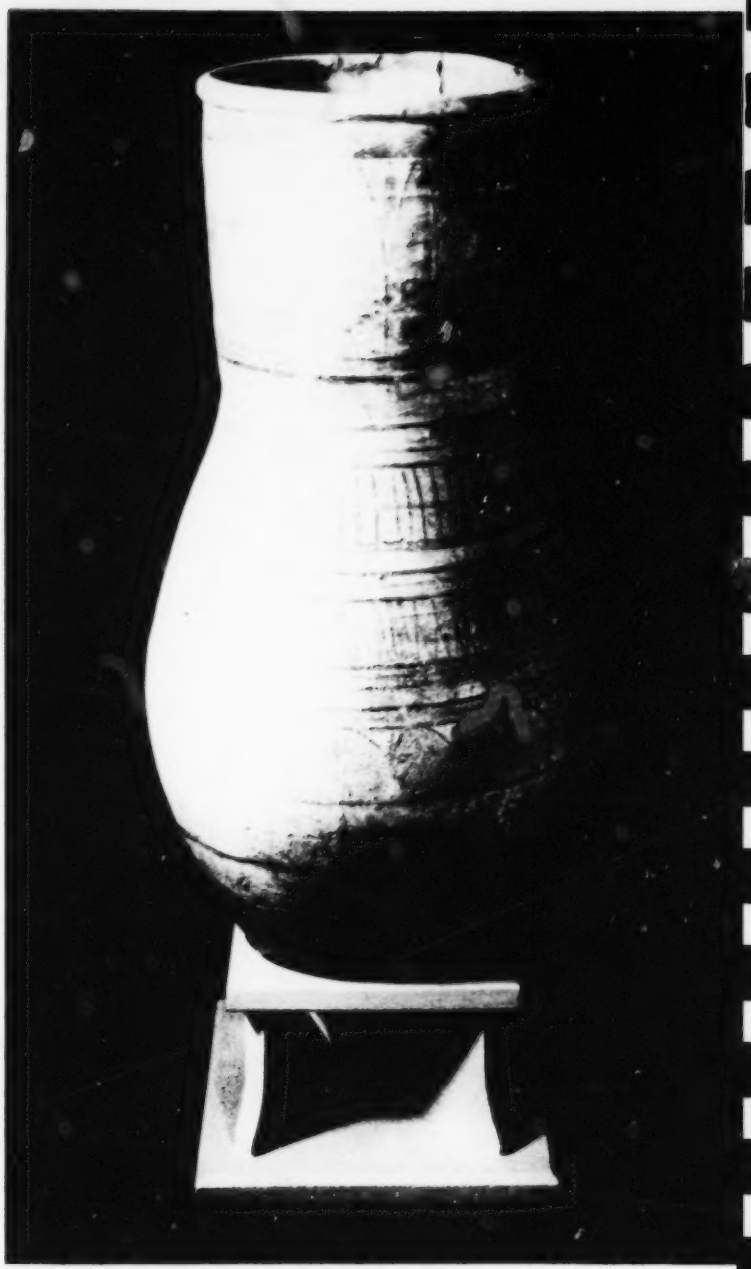

Figure 36: *Malkata Vase*

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[52] *Treasures of Tutankhamun*. New York: The Metropolitan Museum of Art, 1976, p. 162.

Two Handled Pottery Jar
New Kingdom
Scripps SDM #14894
Clay (24" high)
Tel el Amarna

This tall jar is strikingly beautiful in its design because of the relationship of the position and size of the handles to the neck and opening to the base. The area just below the narrow neck of this jar has traces of yellow and blue paint, replicating a collar or garland of blue flower petals.

Figure 37: *Two Handled Pottery Jar*

Low Stool
New Kingdom
Scripps SDM #14858
Wood (12" high)
Tel el Amarna

The Egyptians practiced woodworking before the first dynasty using the wood of local trees such as sycamore, tamarisk, acacia, willow and persea. Because these trees were not very large and the planks often uneven, carpenters had to join short pieces of wood with pegs and cover them with veneer to obtain long planks. Usually wood was imported from the Sudan, Syria and Phoenicia for more elegant furniture. Ebony came from the Sudan, cedar, pine, cypress, oak, ilex, and juniper wood came from Syria and modern Lebanon. By the third dynasty in the Old Kingdom, Egyptian carpenters had already succeeded in forming plywood consisting of six layers.

Low stools like this one might have a seat of stringed mesh on which comfortable cushions were laid. The carved seat support has nine holes on each side. Wooden pegs are visible in the seat support. This delicate stool is a rich brown-colored wood.

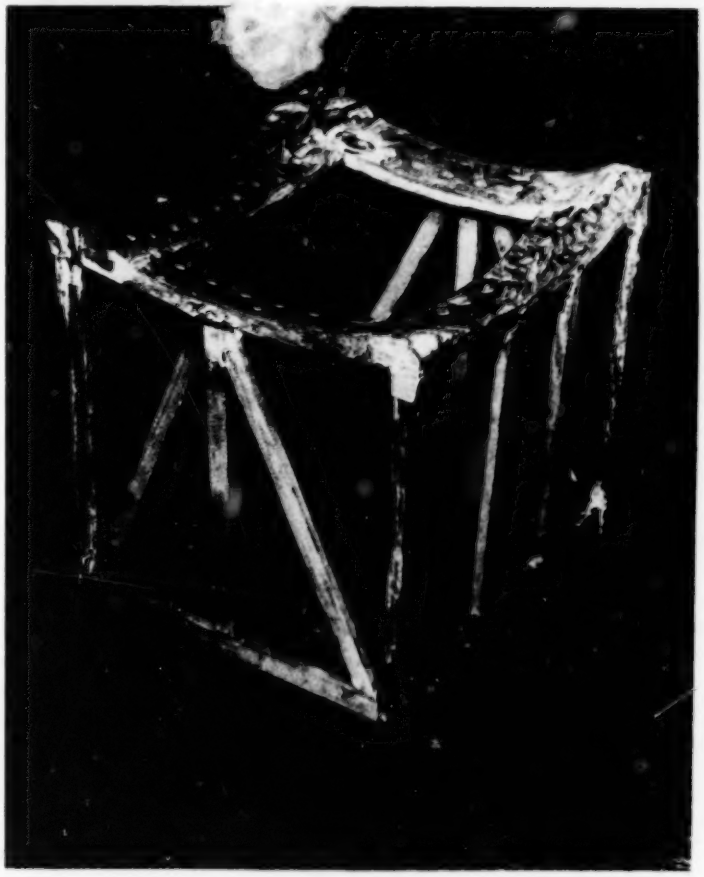

Figure 38: *Low Stool*

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Fresco
Scripps SDM #14912
Painted Plaster Slab (41" high)
Tel el Amarna

This painted pavement fragment[53] came from the decorative water-court in a sacred area called the Maru-Aten, "Precinct of the Aten." The technique used to make this floor involved painting designs on the wet absorbent plaster. Because of this method, the colors and design didn't wear off the floor.

Two picture planes with flowering plants are represented here, one above the other. The upper fresco is painted in four colors: blue, rust, dark blue, and yellow. Blue is used for stems, buds, and blossoms. The outlines emphasized in the area of the flowers are in a color similar to red iron oxide. The base of the short blade-like leaves is done in a very dark blue outline on a rutile yellow wash like the frame. The pictorial panel below is in soft sage green with a red iron oxide accent.

The dry brush strokes give a spontaneously fresh look to the 3,000 year old painting.

Figure 39: *Fresco*

[53]An illustration of the reconstructed pavement appears in *City of Akhenaten*, Part I, PL. XXXVI #3 (Bruce Kamerling, 1973).

Glazed Tile Fragments
New Kingdom
Scripps SDM #11870, 7689, 7674
Clay
Tel el Amarna

Thistles and swamp plants painted on glazed tiles like this one (#7674) once lined one of the rooms of the great palace.[54] This interesting multi-colored fragment has leaves and a thistle bud. The negative space in the center of this small composition beautifully takes on the shape of the leaves themselves. The other fragments also represent vegetation.

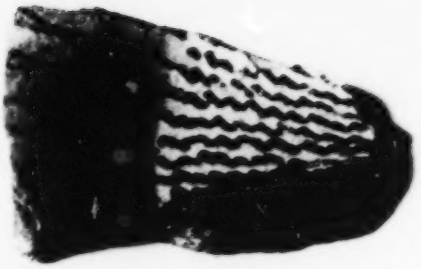

Figure 40

Grape Cluster
Scripps SDM #14849
(2 1/2" x 1 1/4")

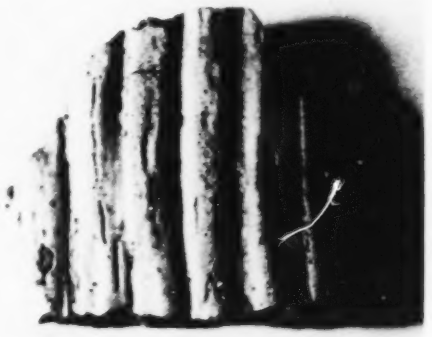

Figure 41

Faience necklace elements and amulets in the shape of pomegranates, bunches of grapes, thistle heads, and flower petals were manufactured in quantities in the new capital of Tel el Amarna. [55]

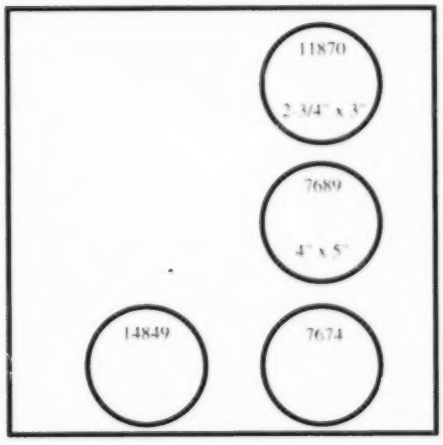

Figure 42

Figure 43

[54]Smith, William. *Ancient Egypt as Represented in the Museum of Fine Arts, Boston.* Boston: Museum of Fine Arts, 1960, p. 134.
[55]*loc. cit.*

Cartouche of Akhenaten
Scripps SDM #14884
(9 1/2" high)

Royal names were enclosed in a frame called a cartouche. The carvings on this cartouche were done in relief below the surface of the wall or "sunk" relief. Traces of blue paint remain on this fragment of the famous king's name.

Figure 44: *Cartouche of Akhenaten*

Cartouche of Nefertiti
Scripps SDM #14709
Limestone (10 3/4" high)
Tel el Amarna

This fragment from a private household shrine bears the cartouche of Nefertiti.

Hieroglyphs should normally be read in one direction only. An interesting exception is the cartouche of Nefertiti. Not even the queen was allowed to have her name facing the same direction as the god. Her full name was Nefer-Neferu-Aten-Nefertiti. An alternative interpretation might be that Aten was showing his favor by facing the queen

Figure 45: *Cartouche of Nefertiti*

Figure 46: *Nefertiti Holding an Ankh*

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Nefertiti Holding an Ankh
New Kingdom
Scripps SDM #15299
Limestone Column Drum, detail from the Weben-Aten (8 3/4" high; 10" wide)
Tel el Amarna

Fragments of three figures appear on this relief. The best preserved is that of the Queen Nefertiti. In front of her and behind her are fragments of two other figures in different sizes represented by hands holding things.

Queen Nefertiti
Her body is heavy looking. She moves to her right. She has exaggerated buttocks and swollen thighs with a wasp-like waist. Her diaphanous pleated gown appears to be tied under her right breast with a long narrow sash that falls off to her left following the contour of her body. Sleeves or fabric that flares out from her arms just above the elbow may be the sashes from her headdress (left arm) or the gown itself which makes a gentle curve by her right arm. Her clavicals (shoulder blades) show the vertical axis of her body off to one side.

The Hand Behind the Queen
The hand of a princess holds a musical instrument called a sistrum. The sistrum is seen from a 3/4 view. The sistrum is held about elbow level, with the right hand. The Egyptian Museum in Berlin has actual sistrums in its collection. They were made of a lyre-shaped metal frame through which passed loosely attached metal rods and were shaken like a rattle.[56]

The Hand in Front of the Queen
A carved left hand indicates a figure precedes the queen. The hand grasps an object with a horizontal extension. This figure appears to be much larger and higher in the plane than Nefertiti because the position of the figure's wrist is higher than the position of Nefertiti's left wrist. A hawk-headed object (with beak facing upwards) is grasped in this hand. This represents a censor (incense burner) terminating in a hawk's head with sun disk probably representing Ra. The other end would have been shaped like a human hand holding a dish in which the incense was burned. An Egyptian incense burner like the one described here can be found in Berlin's Egyptian Museum.[57]

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[56] *Agyptisches Museum Berlin*, Staatliche Museen, 1967, p. 62. Figure 713-715.
[57] *Ibid.*, p. 63, Figure 699.

Sculptor's Trial Piece
New Kingdom
Scripps SDM #10086
(4 1/2" x 5")
Tel el Amarna

The profile of the human head in this carved relief has a special beauty because of the light and shadow contrasts. The many curves and angles that simply outline the shapes of various sizes further add to the visual beauty of this carved fragment. Notice for example how the large smooth area of the hair shape balances the many small curved shapes that delineate the mannered facial features.[58]

Figure 47: ***Sculptor's Trial Piece*** **(probably Nefertiti)**

[58]Kamerling, Bruce, *City of Akhenaten*, Part III, PL. LXX #1, 1973.

Kneeling Figure
New Kingdom
Scripps SDM #14736
Sandstone (9" long)
Tel el Amarna

The kneeling figure pictured here was probably used in a religious context. The diaphanous gown swirls in a beautiful loop over the right bended knee. The figure's right leg is painted with a soft rust color. The thigh and buttocks are heavy looking under this garment. The pleated garment radiating from the lap of the kneeling figure adds to the beauty of the piece. The youthful figure kneels apparently with only toes and knee in contact with the ground.

Since Aten would have been difficult to depict in three-dimensional form, images of Akhenaten holding an offering table (either standing or kneeling) would have been used in private shrines. In pre-Amarna times such shrines would have held images of the various gods which were no longer allowed during Akhenaten's reign.

Figure 48: *Kneeling Figure*

Royal Head With Uraeus
New Kingdom, Amarna Style
Scripps SDM #7694
Brownish sandstone (9" long, 8" across, 3" thick)
Tel el Amarna

This relief shows the upper portion of a royal head facing left. Four long slender painted fingers of the god Aten appear in the upper left of the relief, curved gently toward the uraeus. In hieroglyphics, the cobra (uraeus) of the goddess Udot of Lower Egypt was one of two signs, the other was the vulture, regularly used to introduce the second name in the king's title: the Two Goddesses name. Three long stripes of bas relief painted rust represent three longer arms of the god Aten. The left edge of a fourth arm of the Aten is also visible. The headdress has a liner with traces of blue paint.

The relief is carved to acknowledge the curvature of the head, but the plane on which the arms and uraeus appears is very flat.

Note the plastic look of the cobra's head. This uraeus does not have the vulture of Upper Egypt.

Art objects like this one acquired this damaged look because limestone fragments with carved reliefs were blown up with gun powder by treasure hunters who were trying to remove the art from buildings or tombs.[59]

Figure 49: *Royal Head with Uraeus*

The fragment of a blue headdress or short wig shown here is the same as that worn by King Tutankhamen in the hunting scene on the small gold shrine in the form of the sanctuary of Nekhbet mounted on a sledge, the ostrich-feather fan, and other images of the king found in his tomb.[60] However, the presence of the arms of the god Aten tell us this relief probably was carved depicting other royal figures.

[59]Smith, p 132.
[60]Armento, p. 72.

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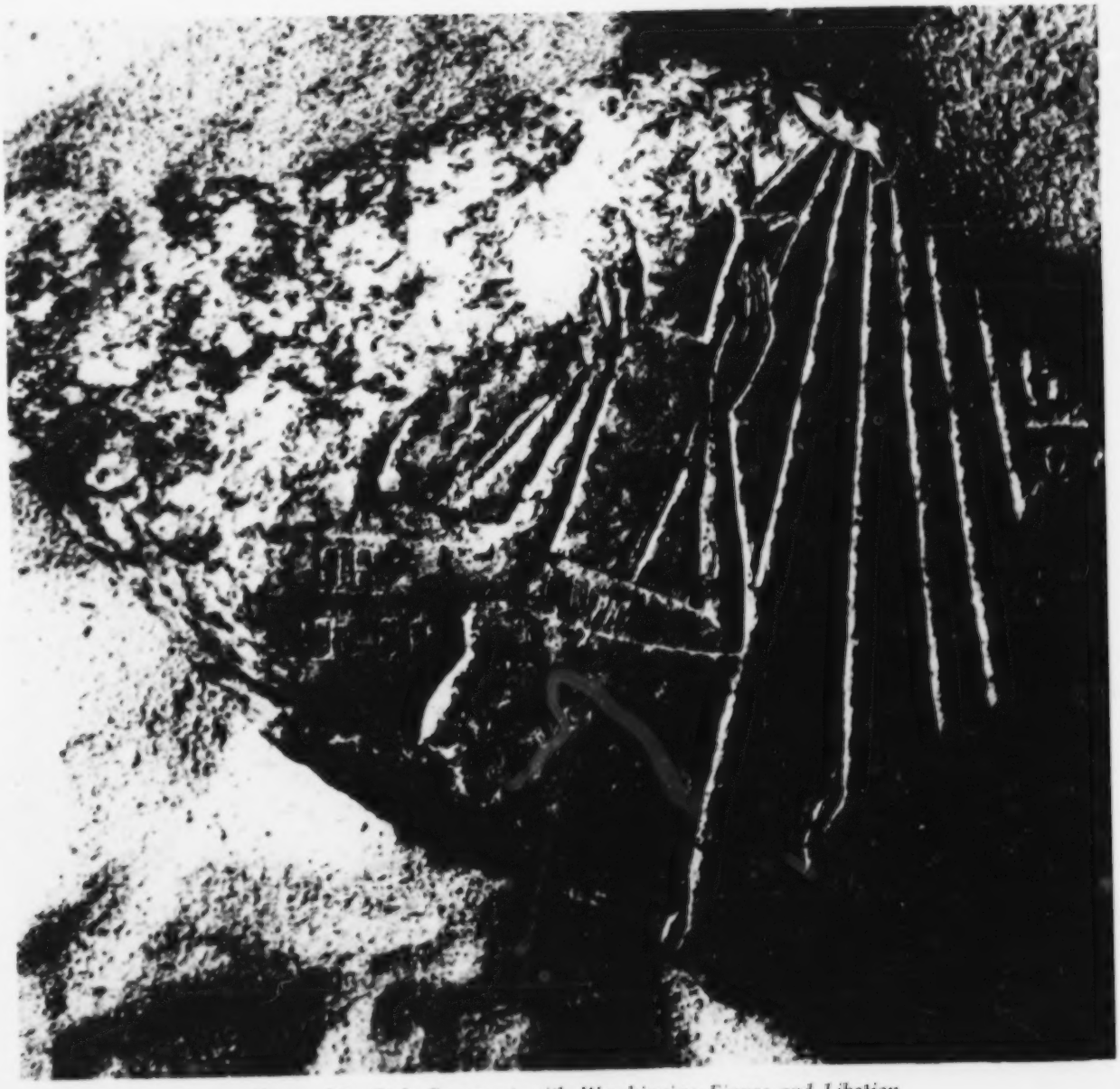

Figure 50: *Stela Fragment with Worshipping Figure and Libation*

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Stela Fragment with Worshipping Figure and Libation
Scripps SDM #7696
Mottled Grey Granite (6" x 6 1/2")
Tel el Amarna

There are no traces of paint on this mottled grey and peach colored stone. One side of the stone has been smoothed off and somewhat polished. The composition on this fragment shows Akhenaten with uplifted arms in praise of the sun disk Aten holding up an offering vessel to the god Aten. The disk Aten has a ureaus (cobra) and an ankh, the symbol of life.[61] The rays of this disk are human arms that end in hands. The hands of the Aten are not as exquisitely represented as the left hand of the royal figure. While small cartouche shapes form a rhythmic pattern across the body and arms of the figure, the figure appears to be unclothed. The chest by the nipple has a greater carved depth than the line under the left arm which should be behind the chest in terms of space. Seven arms of the Aten can be counted on this relief. One complete hand with curved fingers appears in the lower right in front of a bouquet of lotus blossoms on an offering table (now gone). A jar is in position between the two upraised hands being offered to the Aten. The perspective is strange because Egyptians never showed a back. In order to depict the front of the figure, the wrong arm is forward.

On the face, the lower lip of the royal figure appears above a gentle thrusting chin. Unfortunately, nothing more remains of this royal head in profile. Notice how the width of the up-raised arms parallels the width of some of the spaces between the arms of the Aten. These long shapes which balance each other add to the beauty of the piece. At the far right is the remainder of the cartouche of Aten with signs (Given Life) below.

[61] Kamerling, Bruce, 1973.

Figure 51: *Seated Figure with Blue Crown*

Seated Figure Wearing Blue Crown
New Kingdom
Scripps SDM #14860
(5" x 2 1/4")
Tel el Amarna

A royal pharaoh sits facing right. One arm (right) is casually behind and the left arm is extended slightly forward. A stool with offerings is before him. He wears a long transparent pleated kilt that ends just above the ankles. The offering table has a blue cushion. The relief fragment is three separate pieces joined together. The center section is in the best condition. The kilt or gown is tied under the abdomen.

Right Foot with Sandal
New Kingdom
Scripps SDM #7065
(4" long, 2 3/4" wide, 2" thick)
Tel el Amarna

This fragment of a sculpture was discovered in 1920 by the Egypt Exploration Society at the palace of Akhenaten. Originally part of a three dimensional figure, this fragment of a right foot (when seen in profile) even suggests weight as the sandal thins and appears to sink into the sand.

A fold or wrinkle of flesh appears on the large toe. The fourth toe has an exquisite, carefully trimmed nail. The long platform of the pointed sandal makes a handsome background shape for the toes.

Figure 52: *Right Foot with Sandal*

Blue Kepresh Crown
Scripps SDM #14698
(4 1/2" x 4 1/2" x 2 1/2")
Worn by Akhenaten

This small fragment can be identified as part of a royal crown because of its distinctive blue color, curved shape, and textured pattern. The fragment was most likely made of Egyptian Paste and set into a background or relief of other materials.

The Khepresh crown, sometimes mistakenly called the war helmet, first appears at the end of Seventeenth Dynasty as a royal headdress. Royalty have been depicted wearing this crown in battle, in religious and secular ceremonies, and in private life.[62] One of the reasons for the blue color of this crown may be the sun god's hair was believed to have been made of blue lapis lazuli.[63] The blue crown worn by pharaohs was made of leather. An empty hat box was found in King Tutankhamen's tomb which may have contained this crown before it was stolen by thieves.[64]

Figure 53: *Blue Kepresh Crown (fragment)*

[62] *Treasures*, p. 125.
[63] *Ibid.*, p. 99.
[64] Desroches-Noblecourt, Christiane, *Tutankhamen*. Boston: New York Graphic Society, 1963, pp. 174-175.

Stela Fragment With a Royal Figure Worshipping
New Kingdom
Scripps SDM #10066
Granite (8" high, 10" wide)
Great Palace, Tel el Amarna

This grey colored stone is carved with a figure wearing long wig. Long spindly arms are raised in worship. The shapes and angles created by the hair on the left shoulder make a handsome balance to the negative space in the crook of the upraised right arm. No garment or collar appears on the figure in this relief.

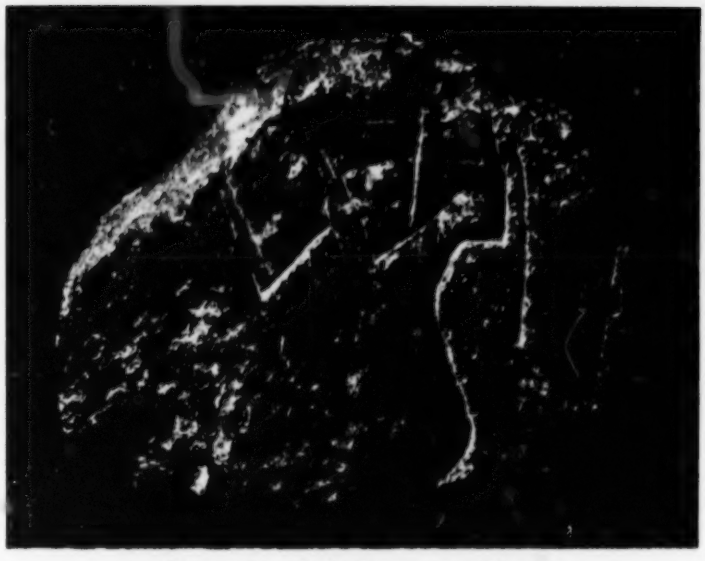


Figure 54: *Stela Fragment with a Royal Figure Worshipping*

Head of a Princess
Scripps SDM #15047
Reddish color quartzite
(6 1/2" long)
Tel el Amarna

This sculpture of a head and support (behind the head) belong to an Amarna princess. The eyes, one ear, the bridge of nose, the forehead, the upper skull, and the upper neck are all well defined. Two lines carved in the neck are typical of the Amarna style. The smooth skin of the shaven elongated skull contrasts with the rough damaged areas. A portion of her left jaw remains. The sculptor's original placement of the head in the sculptural design is still visible from the side.

Figure 55: *Head of a Princess*

Torso of Akhenaten's Eldest Daughter Meritaten
New Kingdom
Scripps SDM #10082
Quartzite (9" high)
From the Broad Hall at Tel el Amarna

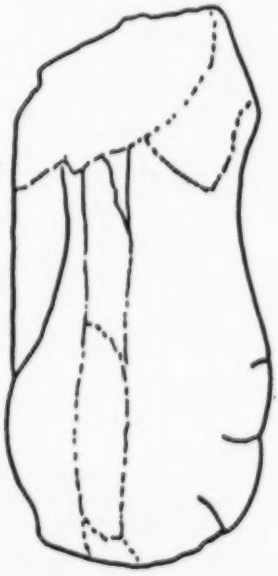
This beautifully carved piece, with inscriptions on the back, is of a young woman, her head and legs broken off. The slit in her abdomen represents her navel, a "winking" shape characteristic of the Amarna style. Positioned in the sculptural stone fragment at an angle, the Princess's body is finished on the front and on the right side. The wwww part of the inscription is at the same level as the fullest part of her right buttock. According to Bruce Kamerling the inscription reads, "...Meritaten, born to the royal wife (Nefertiti)." There were no cartouches here because the princesses' names were not placed in a cartouche until after they became a queen. This is just a column of hieroglyphics.

Figure 56: *Torso of Akhenaten's Eldest Daughter Meritaten*

Figure 57: *Torso of Meritaten*, back view showing inscription

Standard Inscription for Princesses
Inscripción standard para una sprincesas

Torso of Meritaten
Back view showing inscriptions



Side view

Rey		King's
Hija		daughter
de		of
cuerpo		body
su (él) querida		beloved
de él		his
Aten		Aten
merito		Merit
nació		born
de		to
Esposa Real		Royal Wife
Magfinico		Great
Aten		Aten
Nefer Neferu		Nefer Neferu
Nefertiti		Nefertiti
quien vive		who lives
eternamente		eternally

Figure 58: *Relief with Fan Bearers in Procession*

Relief with Fan Bearers in Procession
New Kingdom
Scripps SDM #10081
Standstone (9" high, 15" wide, 9 1/2" thick)
Tel el Amarna

The presence of two figures and two fans can be discerned on this relief. The diagonal passages created by the handle of one fan and the edge of another fan make this a dramatic composition to look at. Fans were made to imitate the leaf of the blue lotus or the frond of the date palm. Because the fan represented the air it moved, it was an active, functional symbol of breathing, and therefore, of life.[65] The fact that there are inscriptions on the back indicates that this is a wall, which indicates the thickness (see below).

The figure to the far right has an elaborate wig. Carefully defined nostrils are still visible on the figure to the left with a shaven head.

Fan bearers might be considered so important to a pharaoh that they might be buried in a place reserved just for royalty. One of the few private people to be buried in the Valley of the Kings was a contemporary of Amenhotep II, the Fan-bearer Mai-her-peri. The tomb produced many beautiful things which are now in the Cairo Museum. [66]

Figure 59: *Hieroglyphic Inscription* (back view of relief with Fan Bearers in Procession)

[65]Wilkinson, p. 179
[66]Smith, p. 124

Relief with Fan Bearers Overlapping
New Kingdom
Scripps SDM #7067
(10" high)

Two figures with short headdresses appear side by side, one before the other, with fans at their backs. The profile of the second face is larger than the face in the foreground. There are no traces of paint. There is a coarse surface. The point of the first hairdo compliments the curve of the shoulder, carved in bas relief. No clavical appears on the foremost figure, who wears a short wig. This is not really sunk relief. Notice how the stone carved to depict the chest of the closest figure is as level as the background.

Figure 60: *Relief with Fan Bearers Overlapping*

Oval Shaped Basket
New Kingdom
Scripps SDM #14790
Plant Fibers (6" high, 13 1/2" long.

Baskets were often made from palm leaves or strips of papyrus. A basket like this one with an inner edge or lip would probably have a lid. It was probably used as a household container to hold fruit like doom palm fruit.[67] This fruit has a gingery taste with an outer skin, so tough it could be used as the top end of a drill handle. These fruit have been found in tomb offerings 3,000 years old. Many undecor-ated oval-shaped baskets (lidded) like this one were found scattered about in the Annex of the 18th dynasty tomb of King Tutankhamen.[68]

Figure 61: *Oval Shaped Basket* (detail)

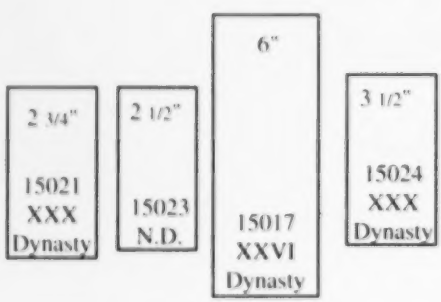
Figure 62: *Oval Shaped Basket*

[67]Hart, 1980, p. 47.
[68]*Treasures*, p. 167.

Ushabtis
XXVI - XXX Dynasty
Scripps SDM #15021 (2 3/4" x 1 1/8") #1517 (6"H x 1 3/4" W); #15023 (2 3/4" H x 7/8") #15024 (3 1/2" x 1 3/8" W)
Abydos

These four figures are "answerer" figures or *ushabtis* who are placed in the tomb to do any work that needs to be done in the afterlife by the deceased person.[69] In an earlier time (18th dynasty) during the reign of King Tutankhamen these statuettes were known as *shawabti*, most likely because such figures were originally made of the wood of the persea tree (*shawab*).[70] One of the most important jobs the servant figurine could do was to hoe the ground, the first part of the agricultural process. The rite of hoeing the ground was important to the deceased because there was both myth and ritual related to the god Osiris who was symbolically buried each year in the form of the planted grain. Many of the ushabtis have hoes in their hands because hoeing was described in the first chapter of the Book of the Dead and hoeing was one of the symbolic rites included in the funerary proceedings. There might be one ushabti for every day of the year, plus 36 foremen to control each group of ten figures (foremen were those wearing aprons). One 26th dynasty tomb (570-525 B.C.) discovered intact in 1903 at Sakkara (tomb of

Figure 63: *Ushabtis*



[69]Wilkinson, pp. 143, 191
[70]*Treasures*, p. 152.

Hekaemsaf) had a total of 401 blue faience *shawabti* figures lying on a wooden platform, dispersed on both sides of the door, the ideal number for non-royal people.[71] There were 413 figures found in King Tutankhamen's tomb. The most *Shawabti* figures were found years later in King Sethy I's tomb (700).

Three of the figurines are dated. One is bearded (15021). One is painted with brown to show eyes and eyebrows. There are brown wristlets, hoes, and even designs on the back (15017).

Ushabti- 26th Dynasty
Smith SDM #1991-74-72
Blue-green Faience

This ushabti was cast from a mold. This one is in "mint" condition.

Stela Dedicated to My-Ptah
Late 18th dynasty ca. 1350 B.C.
Smith SDM #1992-18-4
Limestone (21" high)

This family portrait includes My-Ptah and his wife Ta-Imy ("chantress") in the temple choir of the god Amen and "mistress of the house." Behind them are their son and daughter, Se-ankh-an-re and Nefret-ity. In this large relief four figures in descending sizes move to their right each bearing a gift.

Figure 64: *Ushabti*

[71]Saleh, Mohamed, and Hourig Sourouzian, *The Egyptian Museum Cairo*, Munich: Prestel-Verleg, 1987, p. 249.

For example, Se-ankh-an-re, the son, has a bouquet cone of flowers brought across his chest. As for their physical appearances, the smallest figure has an ointment cone. The wife appears to have a flower and ointment cone on her head. Notice how the female figures in their long straight gowns stand with feet overlapping while the male figures in their pleated and plain kilts move in strides. Notice the cape style garment worn by the women. The implied arc formed by the descending size of the figures' heads makes a beautiful parallel to the shape of the stela.

Figure 65: *Stela Dedicated to My-Ptah*

Coffin Lid
Smith SDM #1992-18-1
Painted Plaster-Covered Mud on Wood (68" long)

With black outlined eyes wide open, the cover of this ancient coffin depicts a figure at rest. An elaborate stylized collar is painted grey, rutile, black, grey, and red iron oxide on white. Like other masks in this exhibit, the mummy wears the headdress known as *nemset* which falls on either side of his shoulders and is tied in the back by a cord in the form of a braid or queue.

The inscription on the front of this coffin lid is in a band of hieroglyphs which has a variation on the standard formula of offering used in the Egyptian funerary cult. Throughout Egyptian history, the presentation of food offerings, either real or through magic, was called "performing the rite named 'a boon-which-the-king-gives' (*hotp-di-nesu*)." In the later period, this formula was interpreted as the king giving an offering to some god in his temple so that the god, in turn, would share the offering with a private individual in his tomb. Of the vast quantities of food accumulating at the temples, only a small portion was consumed by the priests. The rest was distributed to persons in charge of private funerary cults so that the dead could be nourished.[72]

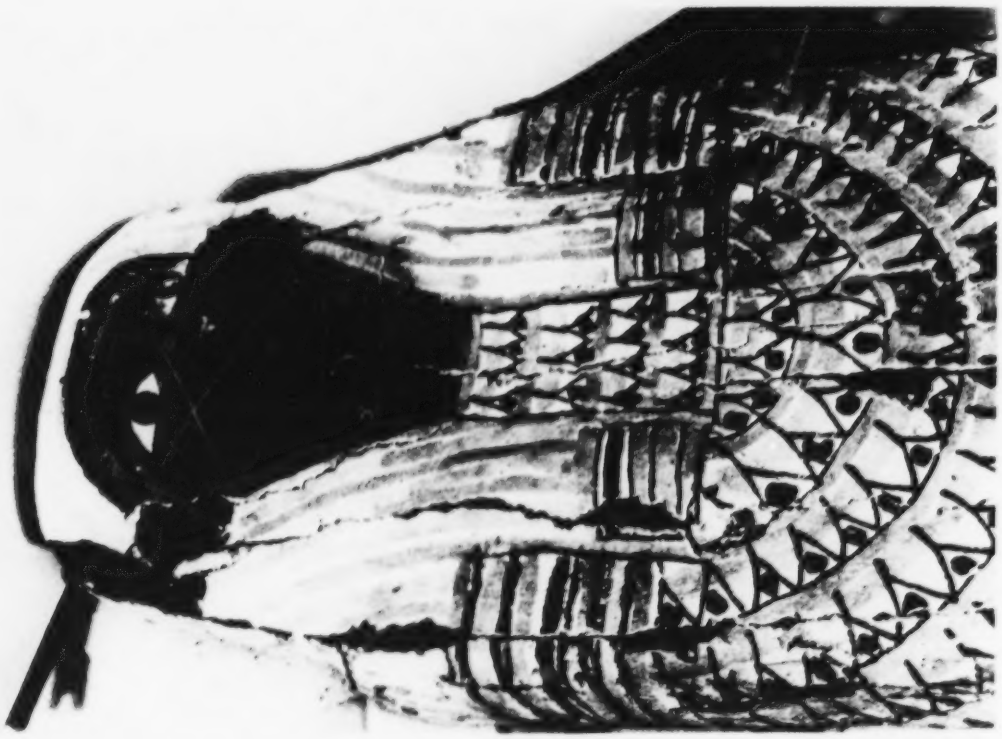


Figure 66: *Coffin Lid*

[72]Gardiner, Sir Alan , *Egyptian Grammar*, Oxford University Press, 1964. Notes by Bruce Kamerling.

Coffin Lid

The inscription on the coffin lid is to be read from right to left, top to bottom. The actual inscription has several errors indicating that the person who painted it was unskilled at writing. Therefore, when one looks at the photo and compares it with the hieroglyphs drawn on this page, as they should be, there will be a difference.

According to Bruce Kamerling, the inscription says, "A boon which the King gives to Osiris, Khent-Ament, the great lord of Abydos, that he may give invocation offerings consisting of beer, oxen, and fowl."

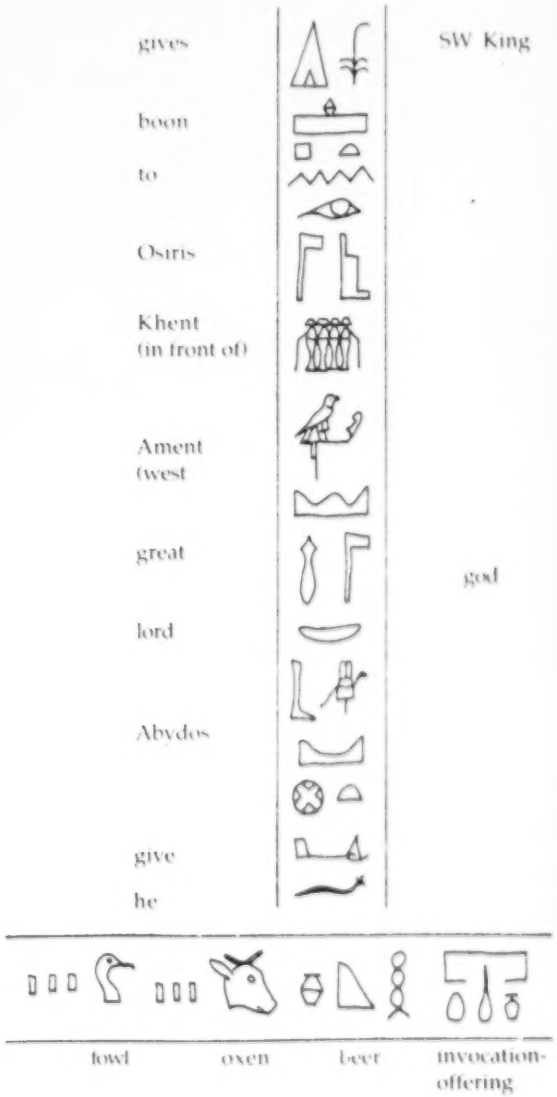


Figure 67: *Coffin Lid* (detail)

The Mummy
Ptolemaic
On loan from Los Angeles Museum of Natural History, A. 1287-4
Decorated and wrapped human remains

The beautiful detailed paintings on this mummy are placed in four zones.

A. **The Upper Torso.** This painting is an imitation of a broad collar or neck garland made of concentric half circles of small flowers, blossoms, and terminals of hawk heads. This is the best preserved section.

B. **The Abdomen**. A rich painted panel divided in two registers is decorated in the upper register with a winged scarab pushing a sun shape (done in gold leaf) and pictured with the mummified deceased over the right wing. In the second register, a winged goddess kneels. The four sons of Horus are pictured, one on either side of each register.

C. **The Hips, Thighs, and Legs**. The long narrow painted panel that appears here has three registers.

   i. The upper most register is a painted scene showing two bare-breasted female mourners with long red gowns. Anubis wraps his arms around the remains of the deceased as they rest on a bier with a lion head, tail, feet, and legs. Notice the charming way the artist represents the black human legs of Anubis on the other side of the bier, in between the four canopic jars.

   ii. The second register has four human-headed figures.

   iii. The third and lowest register has four snake-headed mummified figures.

D. **The Ankles and Feet**. Abstract designs appear around the feet. The feet themselves are also represented, complete with toe shields (gold leaf) and red-colored skin tones (please refer to the Ptolemaic Mummy description on page 77).

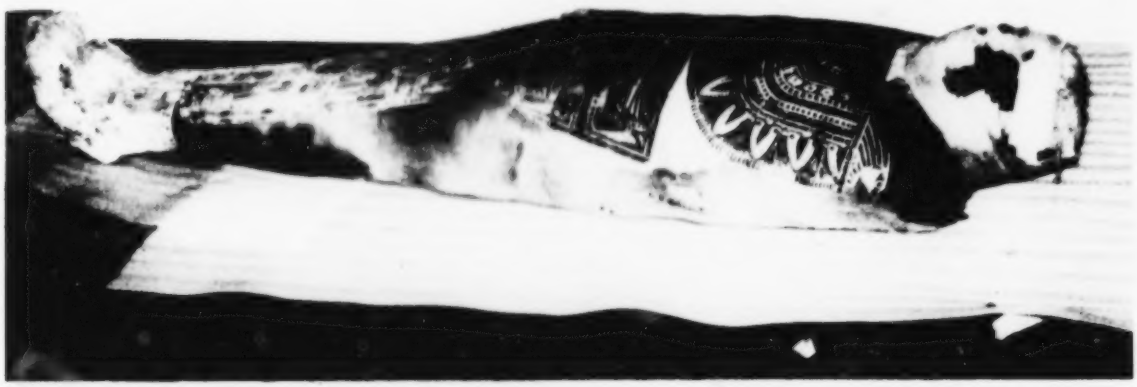


Figure 68: *Ptolemaic Mummy*

Figure 69: *Panel from the Mummy Paintings* (Detail of Anubis mummifying the deceased)

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Naos Shrine with Re Falcon
Graeco-Roman Period, 1st - 2nd Century
Smith Collection SDM #1991-74-1
Wood, plaster and painted decorations (26 1/2" high)

Falcons worshipped throughout Egypt as Re, Horus or even other deities, were mummified after their death and placed inside wooden chests that were stuccoed and painted. The divine birds were carried to their tombs in these chests with a procession. There are two "bird mummies" in the photo. However, only the mummy on the far right (SDM #1991-74-3) is on exhibit. It is 13" high.

The chest is shaped like a shrine found in Lower Egypt with a cavetto cornice. The cover acts as a roof to the shrine. A two-piece sculpture of a falcon wearing a head piece, with two tall feathers and a sun disk, rests on the roof above the false door.[73]

The wood chest is covered with plaster and painted with the colors black, blue, gold, and dull green.

The bird on top wears a rose-colored cape over his feathers with a circular counterpoise.

A seated lioness painted on the back has human characteristics. The other gods featured on the shrine include Anubis, Herakhty, and Horus.

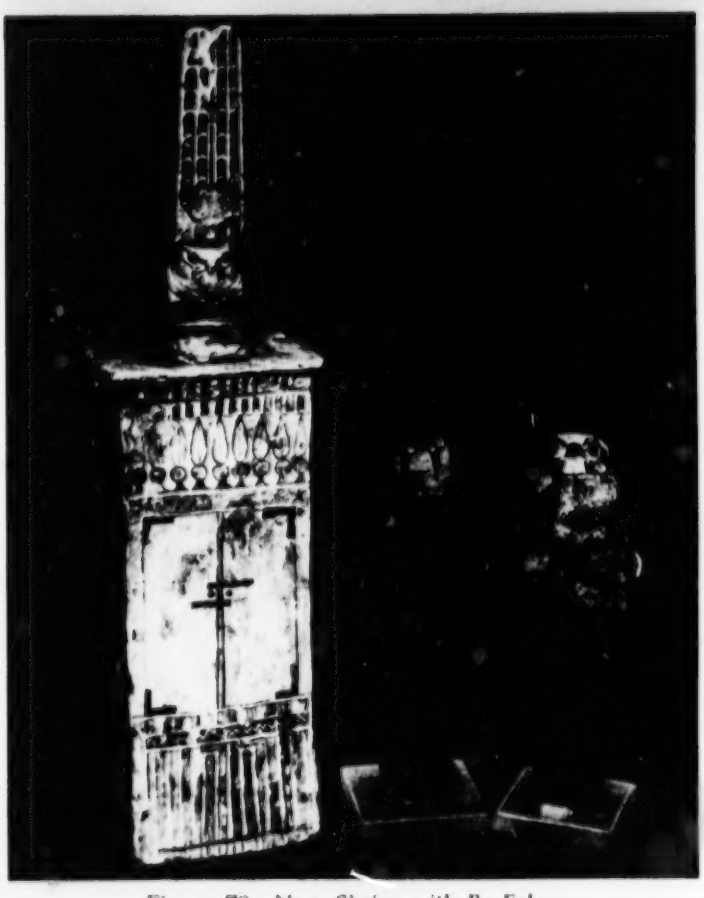

Figure 70: *Naos Shrine with Re Falcon and "bird mummies"*

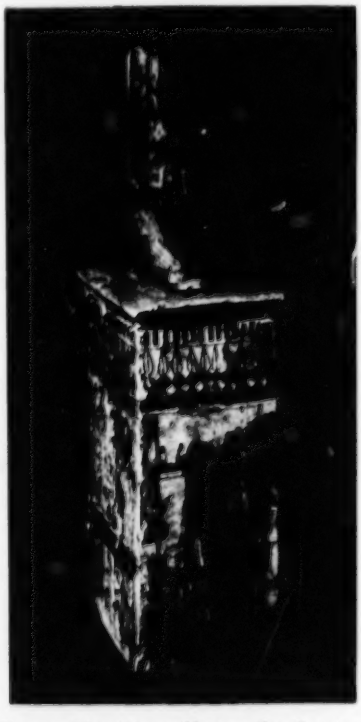

Figure 71: *Naos Shrine* (back view)

[73]Saleh, p. 268.

Figure 72: *Naos Shrine* (Left side)

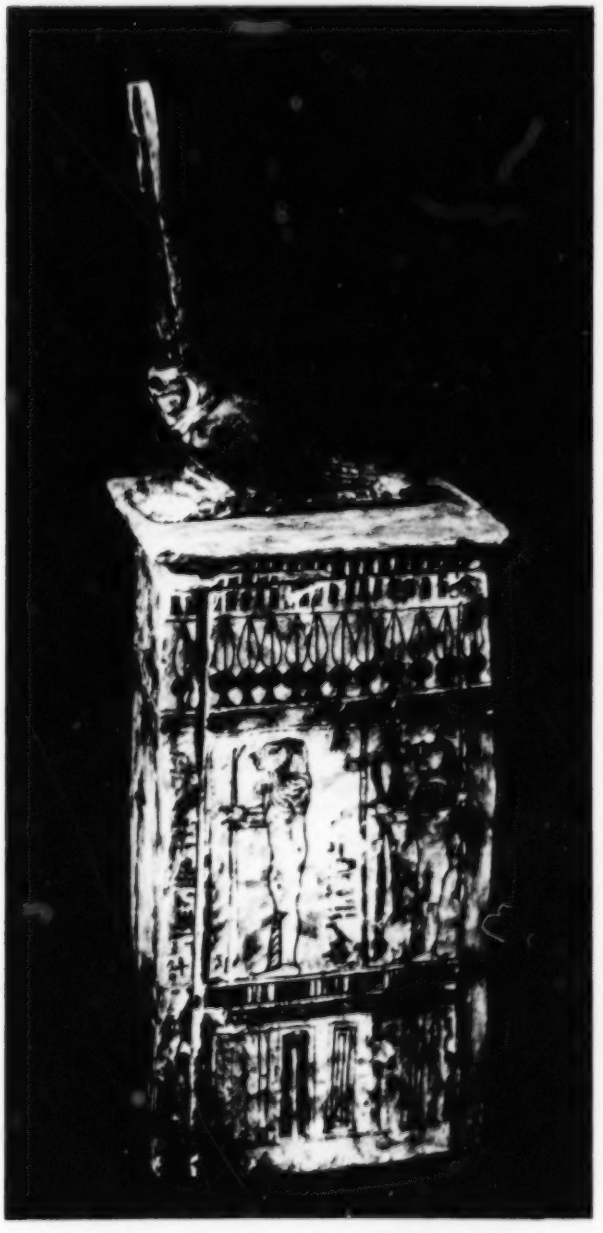

Figure 73: *Naos Shrine* (Right side)

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Mask of a Bearded Young Man
Graeco-Roman
Smith SDM #1991-74-12
Plaster and other materials
(9 1/2" high)

This funerary mask is very life-like in its naturalism. The eyes are of different materials. The right eye is original and inlaid. The left eye is a re-storation and is painted, which is why they don't match. Note the pupil positions, which give an unsettling appearance, are not symmetrical. The mask is about 1/2" thick over all. The man's mouth is partially opened — giving a quizzical appearance. His short, black curly hair is very schematic looking.

Figure 74: *Mask of a Bearded Young Man*

Mummy Mask
Graeco-Roman
Smith SDM #1991-74-11
Gauze, Plaster (17" high)

The youthful face is surrounded by a large blue headdress/wig, with a diadem and symbolism (vulture) of royalty.

Seven rectangles with seven dot-filled circles (alternating turquoise and rust colors) form a semi-circular crown on the person's headdress. On top of the skull, a snake-headed creature with vulture's wings appears. The figure has double sets of lips and a circle "dimpled" chin, giving this mummy mask a surprising comical appearance.

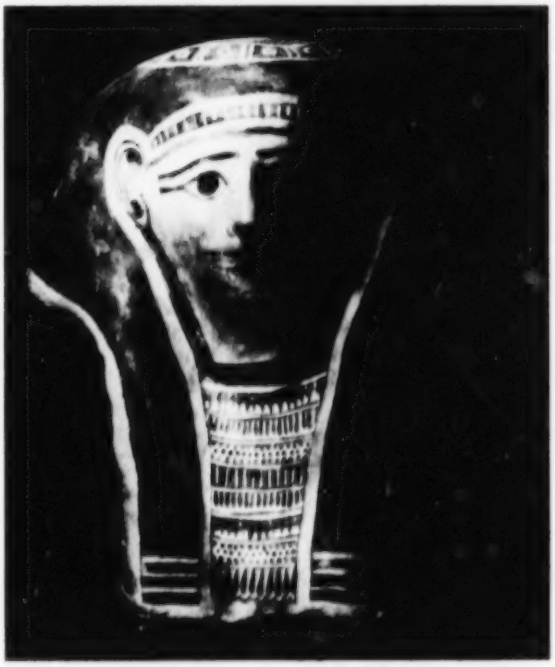

Figure 75: *Mummy Mask*

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The collar has eight different bands interspersed with gold. A sharp point was used to pre-mark the areas to be painted. The contrast between outlined areas and filled in-shapes on the ears and mouth make the design especially pleasing.

Wooden Mask
Smith SDM #1991-74-17
Wood (16 1/2" high)

The young person depicted in this mask is presented with the flesh of gold associated with the sun god.

The wooden mask is a solid flat piece of wood on the back with carving only on the front. Note the unusual elevated position of the ears. The headdress is yellow with black stripes. A red outline follows the black contours. The gold leaf on the face is very thin and is applied to a light buff-colored gesso. The mask is larger than life size.

Figure 76: *Wooden Mask*

Glossary

Abydos:	The center where the dead were taken
Akhenaten:	Amenhotep IV, New Kingdom ruler (Amarna period)
Amarna:	The place Akhenaten built during his reign
Amulets:	Objects that were believed to protect their owner from evil or could bring good fortune
Ankh:	The hieroglyphic sign for life; originally representing a sandal strap, later became an amulet, and was believed to bring good fortune and a long life
Anubis:	A jackal-headed god who conducted the dead to judgment
Artwork:	Object, artifact
Aten:	A monotheism religion believing the sun as the only deity and vital force; represented as a sun disc with rays ending in hands
Burial:	Interment, funeral
Cartouche:	Scroll-like tablet, enclosed oval containing name and titles of royalty
Dynasty:	Family or succession of rulers
Faience:	Glazed pottery
Headdress:	Helmet, crown
Hieroglyphics:	Writing system using pictures and symbol for sounds and words
Horus:	The ancient Egyptian god of the sun, represented by having the head of a hawk
Imsety:	One of Horus' four sons, a protective god of the dead and guardian of the liver
Isis:	A winged goddess, wife of Osiris
Maet:	Goddess of truth
Meritaten:	Akhenaten's eldest daughter
Mummy:	A body preserved by either intentional embalming or by natural conditions
Nefertiti:	Akhenaten's queen
Nile:	River in Egypt beginning in the south (Upper Egypt) and emptying into the Mediterranean from the north (Lower Egypt)
Osiris:	Son of the earth god Geb and the sky goddess Nut, brother of Isis, Nephthys, and Seth
Pharaoh:	Ruler
Relief:	Projection
Sarcophagus:	Outer stone container
Scarab:	Sacred dung-beetle believed to be a symbol of the rising sun
Stela :	Stone, slab
Symbol:	Sign, character
Tomb:	Coffin
Uraeus:	Cobra
Ushabti:	"Answerer," figures used to do work in the afterlife for deceased

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Back Cover

Walk Like an Egyptian

Students from Michelle Bryer's 6th grade class at La Costa Meadows Elementary School strut their Egyptian wares while presenting research projects on various topics including jewelry making, pyramids, Egyptian polytheism, mummies, Egyptian fashions, and famous Egyptian leaders such as Cleopatra and King Tut. Have a fun-filled day connecting the fine arts to the Social Studies framework (see page 121 for directions on how to create your own Egyptian headdresses and costumes).

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